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ENCYCLOPAEDIA ASIATICA

ENCYCLOPAEDIA ASIATICA

Comprising

INDIAN SUBCONTINENT
EASTERN AND SOUTHERN ASIA

Commercial, Industrial and Scientific

By

EDWARD BALFOUR

IN NINE VOLUMES

VOL. VI. MAIDAH—NYSA



COSMO PUBLICATIONS

NEW DELHI **INDIA**

COSMO PUBLICATIONS

24-B, ANSARI ROAD, NEW DELHI-110002.

The present work was originally published with the title "Cyclopaedia of India and of Eastern and Southern Asia" in 1858 and after an edition in 1873, was completely revised in 1884. The present edition which is released with the title 'Encyclopaedia Asiatica,' is a reprint of that revised edition and contains prefaces to First, Second & Third editions, which were not available in the last edition.

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PREFACE TO THE FIRST EDITION

Whilst we find books of reference in most departments of sciences and literature in connection with European countries, daily becoming cheaper and more abundant, those who investigate and seek for information regarding the sources of British India, or any of the Scientific and economic subjects connected with Eastern Countries, still meet with much difficulty and hindrance, owing to the necessity of consulting numerous authors whose works are scarce or costly. And as some inquirers are without the pecuniary means of procuring all the requisite books and Journals, or find it impossible to procure them at any cost, whilst others want leisure or opportunity for such extensive research, it is evident that progress in these branches of knowledge would be greatly facilitated, by collecting and condensing this widely dispersed information, thereby enabling future inquirers to gain some acquaintance with the results of the investigations made by the many diligent and laborious individuals, who have devoted a great portion of their time to collecting information over the vast areas of Southern Asia.

My avocations while employed in India, more particularly in the past seven years, have rendered necessary for me a collection of books of reference relating to India and the East, somewhat more numerous and varied in character than private individuals generally possess ; whilst my employment a Secretary to the Madras Central Committees for the Great Exhibition of 1851, the Madras Exhibition of 1855, the Universal Exhibition held in 1855, in Paris, and the Madras Exhibition of 1857, combined with my duties (since 1851), as Officer in Charge of the Government Central Museums, have brought under my notice a rare variety of Eastern products and subjects of interest; and thinking that, before quitting the countries in which I have dwelt for nearly a quarter of a century, I might, with advantage leave to my successors in a portable form, the notes made on the products of the East that have come under my notice, combined with an abstract of useful information respecting these contained in my books, I have been led to show the results in the present shape.

A work of this aim and character might doubtless fully occupy the life time of several men attainments ; and this Cyclopædia of India and Eastern and Southern Asia, may therefore be regarded only as a first attempt towards the kind of book, the want of which has been long and generally felt. But although fully conscience of its incompleteness in many respects, yet, I trust it may still

be received with all imperfections and omissions, as a useful and opportune addition to Asiatic literature ; at least by those who recognize the greatness of the saying of Emmerson, that "the thing done avails, and not what is said about it; and that an "original sentence, or a step forward, is worth more than all the censors"* which may be made by such as are disposed to find fault, or who would demand in a work of this kind, a degree of perfection unattainable on a first trial.

The book is merely a novelty in form, the matter it contains being as old as our possessions in India : it is simply a compilation of the facts and scientific knowledge, which authors and inquirers have been amassing and communicating since then, to one and another and the public. But, "in our time, the higher walks of literature have been so long and so often trodden, that whatever any individual may undertake, it is scarcely possible to keep out of the foot steps of his precursors",† and this Cyclopedia. I may, therefore, avow to be put an endeavour to make generally available, in a condensed form, the information acquired by those who have in any way investigated the natural or manufactured products of Southern Asia, or have at any time made its arts or natural history the subjects of inquiry. Some of those whose writings I have made use of, have long since gone to their account, but many a labourer yet alive may find the result of his labours embodied here ; and I have done this freely, because even those whose writings I have most largely drawn, will acknowledge that the quaint old lines of Chaucer†† still apply with full force; viz. that,

"Out of the old field, as man sayeth,
Cometh all his new corn fro' year to years;
So out of old books, in good faith,
Cometh all this new Sciences that men lere"

Indeed, I have rather sought to collect and condense accurate and well ascertained facts than to present novelties; for originality is but too often unconscious or undetected limitation. Byron, years ago, remarked that all pretensions to it are ridiculous; and a wiser one than Byron has told us that "there is nothing new under the sun." But if there be nothing absolutely new in this work, I hope it may yet be found to contain much which to many was unknown before; and which for want of books, liesure, or opportunity, may have debarred them from learning.

The Cyclopedia is not intended to comprise the whole Science of Botany, nor that of Medicine or Zoology; nor to instrust in all the matters useful in Commerce or the Arts; but, whether examined for information or amusement, the botanist, the medical practitioner, the naturalist and the merchant,

*English Traits p. 5

†Salad for the Social, p. 317

††Ibid, page 321.

may perhaps each find something in it which, from his engagements he did not know before, or though once knowing he may have again forgotten. In both cases, the work may prove useful, since old thoughts are often like old cloths; put away for a time, they become apparently new by brushing up. It would have been better perhaps, had a work of this kind been undertaken years ago, or even now were it made the joint effort of several persons : indeed, to render it in any way complete, would call for the resources at the command of a Government rather than of individuals; but we cannot have every thing at the time we wish, nor in the way we wish, and it is better to have some one undertake it and do it the best way he can, now, than to postpone it to some further indefinite period.

With a view therefore of laying a foundation as a starting point for future inquirers, I now undertake the commencement of a work, towards which I hope to receive from many quarters aid and support as I proceed : being thereby enabled either to produce future enlarged and improved editions of the work my self, placing it, as I hope, within the reach of all, or seeing that task taken up here after, by younger men, with more time and opportunities than are now before me. A dinner of fragments is often said to be best dinner, and in the same way, there are few minds that might furnish some instructions and entertainment, from their scraps, odds and ends of knowledge. Those who cannot weave a uniform web, may atleast produce a piece patchwork; and any items of information sent to me will be very acceptable.

There is another difficulty which inquirers in this country have had to meet and struggle with ; I allude to the many languages and dialects in use in India and Eastern Asia, and subsequently the variety of scientific, national, or even local names, by which the same thing is known. The only means of overcoming this difficulty was to frame a copious index of Contents; for Pope has well said that,

“Index learning turns no student pale,
yet holds the eel of science by the tail.”

This Indexing will add to the bulk of the book, but greatly also to its value as a work of reference; and will be carefully completed.

PREFACE TO THE SECOND EDITION

The first edition with its two Supplements contained 29,870 names and the work was favourably received by the public and press. But my acquaintance with these countries did not permit me to regard that number as other than a foundation for an enlarged and improved edition, and this second edition will contain about 100,000 names, under which much connected with India and with Eastern and Southern Asia will be found.

I have spared neither time nor labour to make the present edition as perfect as possible, but a Cyclopedia must necessarily ever be progressive.

1871

Edward Balfour

PREFACE TO THE THIRD EDITION

THE first edition of this Cyclopædia was published in 1858 in India, the second, also in India, in 1873, and the years 1877 to 1884 inclusive have been occupied in revising it for publication in England. During this process, every likely source of further information has been examined, and many references made. I am under obligations to many learned men, to the Secretariat Officers of the Indian Governments, and to the Record and Library Officers of the India Office, Colonial Office, and British Museum, for their ready response to my applications for aid.

This edition contains 35,000 articles, and 16,000 index headings, relating to an area of 30,360,571 square kilometers (11,722,708 square miles), peopled by 704,401,171 souls. In dealing with subjects in quantities of such magnitude, oversights and points needing correction cannot but have occurred; but it is believed that errata are not many, and will be of a kind that can be readily remedied.

It is inevitable that difficulties in transliteration should be experienced, owing to the variously accented forms which some words assume even among tribes of the same race, also to the different values accepted in many languages for the same letters, and especially to the want of correspondence in the letters of the several Eastern alphabets; but in this work traditional and historical spelling has not been deviated from, and the copious Indices will guide to words of less settled orthography.

Men of the same race, habits, and customs, plants and animals of the same natural families, genera, and even species, are so widely distributed throughout the South and East of Asia, that local histories of them are fragmentary and incomplete. India in its ethnology, its flora and fauna, can therefore only be fairly dealt with by embracing a wider area. This is the reason why the Cyclopædia and my work on the Timber Trees include all Eastern and Southern Asia, the regions, the areas and populations of which may be thus indicated :—

INDIA, EASTERN AND SOUTHERN ASIA.	SQUARE KILOMETERS.	POPULATION.
Caucasus, Russian,	472,666	5,546,554
Trans-Caspian, do.	327,068	203,000
Central Asia, do.	3,017,700	5,036,000
Independent Turkoman Region,	206,500	450,000
Khiva,	57,800	700,000
Bokhara, Thignan, Karategin, etc.,	239,000	2,130,000
Arabia,	3,156,600	5,000,000
Persia,	1,647,070	7,653,000
Afghanistan and Provinces,	721,664	4,000,000
Kafiristan,	51,687	500,000
China Proper,	4,024,690	350,000,000
China Provinces,	7,531,074	21,180,000
	11,555,764	371,200,000
Corea,	236,784	8,500,000?
JAPAN AND PROVINCES,	382,447	36,357,212
British India and Feudatories,	3,774,193	252,541,210
Nepal, Bhutan,	234,000	3,300,000
French India,	508	276,649
Portuguese India,	3,355	444,987
Ceylon,	24,702	2,606,930
FURTHER INDIA—		
British Burma,	229,351	3,707,646
Manipur,	19,675	126,000
Tribes south of Assam,	65,500	200,000
Burma, Independent,	457,000	4,000,000
Siam,	726,850	5,750,000
Annam,	140,500	21,000,000
French Cochín-China,	59,456	1,597,013
Cambodia,	83,861	890,000
Malacca, Independent,	81,500	300,000
Straits Settlements,	3,742	390,000
ISLANDS—		
Andamans,	6,497	14,500
Nicobars,	1,772	5,500
Sunda Islands, Moluccas,	1,693,757	28,867,000
Philippines, Spanish Indies,	296,182	6,300,000
Netherland India,	677,038	27,154,054
New Guinea and Papuan Islands,	785,362	807,956
British Northern Borneo,	57,000	150,000
Australia, . . . . .	...	2,193,200
Tasmania, . . . . .	...	115,705
New Zealand, . . . . .	...	489,933
Total, excluding Australia, Tasmania, and New Zealand,	30,360,571 sq. kil. 11,722,708 sq. m.	704,401,171

I am under obligations to Messrs. Morrison & Gibb for their careful press-work. All that their art could do has been done to aid me in keeping the work in a compact form.

EDWARD BALFOUR.

ENCYCLOPAEDIA ASIATICA

VOL. VI.

MAIDAH—NYSA

MAIDAH. **BENG.** A conical hillock raised on a salt field to serve as a filter of the saline soil.

MAIDAN. **HIND.** In India, an open plain, or the esplanade outside a city or fort. In Western Asia it seems to be used specially for the public square or piazza, in the Italian sense, of a city.

MAIDEN-HAIR.

Adiantum capillus Veneris. [Shih-chang-sang, . **CHIN.**

A fern found wild in many parts of Europe, on damp shaded rocks, and a favourite garden plant with the British in India. It is the '*Adiantum*' of the Greeks, and probably gained its name from its having formed a part of the preparations used by the ladies for stiffening their hair. *Adiantum capillus Veneris*, *Lin.*, is used medicinally in India as a febrifuge, and in catarrhal affections. Ginkgo, the maiden-hair tree of Japan (*Salisburia adiantifolia*), is planted about all the temples, and attains a great size. The Chinese are fond of dwarfing it. Its fruit is sold in the markets in all Chinese towns by the name of Pa-kwo, and is not unlike dried almonds, only white, fuller, and more round.—*Fortune, Tea Countries.*

MAIKAI, a range of hills running S.W. from Amarkantak, for a distance of some 70 miles, whence they are continued by a similar range, locally known as the Saletkri Hills. The Maikal Hills form the eastern scarp or outer range of the great hill system which traverses India almost from east to west, south of the Nerbadda. They do not ordinarily exceed 2000 feet in height, but the Lophi Hill, which is a detached peak belonging to this range, has an elevation of 3500 feet.

MAIKAY. **BURM.** A species of *Murraya*? a timber tree of Amherst, Tavoy, and Mergui, maximum girth 1 cubit, and maximum length 15 feet. It is used by Burmese for handles of knives and other weapons, and is a strong, tough wood, in grain like boxwood.—*Captain Dance; Major Simpson's Report.*

MAIL GHAT, a strip of wild country along the Wardha river, where dwell Gond, Raj Gond, Agarmunde Gond, Bhoya Gond, the Parilhan or Bard of the Gond, the Ballai or Gond Pariah, the Nihal or out-caste of the Kurku, the Muge fishers and quail-catchers, numbering in all about 34,650 souls of the aborigines, along with whom are 5196 Hindus.—*Campbell*, pp. 41, 42.

MAIMANSINH or Mymensing, a British district of Bengal, lying between lat. 23° 56' and 25° 25' N., and between long. 89° 43' and 91° 18' E. Its rivers are the Jamuna, the Brahmaputra, and the Megna. Its chief aboriginal tribes are the Hajang, the Garo, the Chandai. The proper home of the Garo is the Garo Hills, but the Garos of Maimansinh dwell in villages of their own at the foot of the hills. They are hard-working people, of unusually robust constitution. They eat all kinds of flesh, and are very fond of liquor, manufacturing for themselves a kind of rice-beer, of which they consume large quantities.

The Chandai are cultivators, fishermen, day-labourers, etc., and some of them are also employed as menial servants in the households of the upper classes; but they are greatly despised, and are not allowed to touch any vessel containing drinking water, or any article of food.

Aus rice is sown from February to April and even May, and reaped from the middle of May till about the middle of September. Aman or winter rice, which forms the main harvest of the

year, is sown in April, May, and June, and reaped in October, November, and December. Boro rice is sown in November and December, and reaped in March, April, and May.

Jute is largely cultivated throughout the district, but particularly in the rich alluvial tracts formed by the Brahmaputra between Ghafargaon in the south-east, and Bhairab Bazar in the north of Dacca District. The river has here silted up a great deal of late years, and jute is grown on the alluvial accretions (chars) thus formed. The seed is generally sown in April or May, after the cold-weather crops have been reaped and the fields repeatedly ploughed. The ordinary quantity of seed used is about 8 lbs. per acre. Seed is raised from the plant by the cultivator.

Tigers infest the char lands in the river beds in the north-west of the district, and bears and other wild animals are found in the Madhupur jungle.—*Imp. Gaz.*

MAIMONIDES, the Latin name of Musa bin Maimun, a learned philosopher and physician, born A.D. 1135 at Cordova in Spain, and died at Fostat, at the age of 70, in 1204. He wrote a work on the Jewish Calendar, but left Spain for Acre in 1165, to escape persecution, and finally settled at Fostat, near the modern Cairo, where he practised medicine, and was physician to Salah-ud-Din. He composed a religious guide (his *Mishneh thorah*), based on revelation and tradition, and then, 'to prove that the principles there set forth were confirmed by philosophy,' he wrote his *Dalalat al-hairin*, the Guide of the Perplexed, called in Hebrew *Morch nebhuachim*. A charge of apostasy from the Jewish faith under Muhammadan persecution, was brought against Maimonides, which was either suggested or corroborated by a letter on Involuntary Apostasy, purporting to be written by Maimonides, and containing such sentiments as that death must be preferred to the worship of idols, but Islam is not idolatry; that the profession of a belief in Mahomed is not a breach of any divine commandment; and that Jews should in such a case seek an opportunity to leave the country, but need not suffer martyrdom.

MAIMUNA. Across the Murghab, and towards Balkh, lie the small states of Andkho, Maimuna, Shighbargham, Siripool, and Akchee. Maimuna is the most important. Maimuna itself is an open village of about 500 houses, but the strength of the chief consists in his il, or moving nomade population, who frequent Umur, Tankira, Sorbagh, Kafir Killa, Khyrabad, Kusar, Chuckaktoo, Takht-i-Khatun, and other sites, which can scarcely be called villages, and Arabs have been long settled here.

At Andkho or Andkhoe, Shah Wale Khan, an Afghan Turk, settled, with others of his tribe, in the time of Nadir. They were then Shiaha, but are now Sunnis. The il of the Andkho chief, besides the chief's race, were Arabs. Andkho has a larger fixed population than Maimuna, being in one of the high roads to Bokhara, but there is a scarcity of water in this canton; here wheat is a triennial plant. Andkho is the place where Moorcroft died.—*Papers, East India, Cabool and Afghanistan.*

MAINPURI, a British district in the N.W. Provinces, lying between lat. 26° 52' 30" and 27° 30' N., and between long. 78° 27' 45" and 79° 28' 30" E.; area, 1696 square miles. The earliest

historical inhabitants were Meos, Bhars, and Chirars, most of whom were entirely supplanted by the Chauhan Rajputs in the 15th century. At a still earlier date, the warlike Ahirs had swarmed over the wild ravines of the western regions, where they remain by far the most numerous and powerful tribe to the present day. Many great Thakur families still retain their hereditary estates in Mainpuri, where they have long formed the aristocratic class. The Ahirs are the most important among them, both in numbers and influence. The Chamar are numerous, and are the labourers of the community. In 1865, Mr. Colvin took a census of the Chauhan and Phatak villages, and found six of the former without a single female infant.—*Imp. Gaz.* vi.

MAIRWARA is inhabited by predatory tribes, and belongs partly to Udaipur, Jodhpur, and the British Government, in virtue of its possession of Ajmir. Mairwara was entirely subdued by a British force in 1821. It was taken under British administration, and a local corps was raised, to which Udaipur and Jodhpur were to contribute annually 15,000 rupees each. Under the British Government, the Mairs greatly benefited. In 1847, the British wished to take over all Mairwara, but this was not done. The Mair is also called Mairote and Mairawut. Mera is a mountain in Sanskrit; Mairawut and Mariote, of or belonging to the mountain; the name of the Albanian mountaineer, Mainote, has the same signification. Mairwara is that portion of the Aravalli chain between Komulmer and Ajmir, a space of about 90 miles in length, and varying in breadth from 6 to 20. The Mair are a branch of the Cheeta, an important division of the Meena, a race which consists of as many branches as their conquerors the Rajputs. All these wild races mingle their pedigree with that of their conquerors. The Cheeta-Meena accordingly claim descent from a grandson of the last Chauhan emperor of Delhi. Unail and Anoop, they say, were the sons of Lakha, the nephew of the Chauhan king. The cocoanut was sent from Jeysulmir, offering princesses of that house in marriage, but an investigation into their maternal ancestry disclosed that they were the issue of a Meena kept woman, and their birth being thus revealed, they became exiles from Ajmir, and associates with their maternal relatives. Unail espoused the daughter of a Meena chieftain, by whom he had Cheeta, whose descendants enjoy almost a monopoly of power in Mairwara. The sons of Cheeta, who occupied the northern frontier near Ajmir, became Muhammadans about fifteen generations ago, when Doodha, the sixteenth from the founder of the race, was created Dawad Khan by the hakim of Ajmir; and as Athoon was his residence, the Khan of Athoon signified the chief of the Mairote. Athoon is still the chief town of the Mair race. Chang, Jhak, and Rajosi are the principal towns adjoining Athoon. Anoop also took a Meena wife, by whom he had Burrar, whose descendants have continued true to their original tenets. Their chief places are Burrar, Bairawara, Mundilla, etc. The Meena were always notorious for their lawless habits, and importance was attached to them so far back as the period of Bessildeo, the celebrated prince of Ajmir, whom the bard Chand states to have reduced them to submission, making them carry

water in the streets of Ajmir. Like all mountaineers, they broke out whenever the hands of power were feeble. The Mair country is situated but a very few miles west of Ajmir, and is composed of successive ranges of huge rocky hills, the only level country being the valleys running between them. From the sturdy valour of this race, the rulers of India never made any impression on them, notwithstanding their vicinity to the occasional residence, for a long period, of the emperors of Hindustan. In later times the Mair were the terror of their lowland neighbours; and even the Rajputs, perhaps with the sole exception of the Rohilla, the bravest men in India, dreaded their approach. The Koli assert their relationship to them, and they admit having intermarried with the Bhil and Meena, and, as Colonel Dixon says, for hundreds of years they have been recruited by refugees and all sorts of rascals from Hindustan, and they are probably a very mixed race. They are described as rather good looking. No native corps did more substantial service at the time of the mutiny than the Mairwara Battalion. The mere fact of its having held Ajmir with an immense arsenal, when the troops in Naseerabad mutinied, was a boon to the British which it would be difficult to overestimate. Had the mutineers got possession of the arsenal, with its vast stores, it would have given them a prestige which would have made it impossible for the Rajput princes to resist the pressure of the people to rise against the British Government. In subsequent actions they were always loyal, often very gallant. A single company on one occasion turned the whole of Tantia Topi's force when trying to pass the Aravalli. They were some years afterwards formed into a police corps. This has been felt keenly by the Mairs, who are proud of their old prowess. Ajmir is remarkable for a monument to Colonel Dixon, of the Bengal Artillery, who was superintendent there for many years. His efforts in reducing the Mairs to order, in clearing a jungly country of bands of robbers, in forming an irregular corps out of those very banditti, and in persuading the inhabitants to do away with witch-finding, female infanticide, and slavery, were repeatedly acknowledged. He died in June 1857. He had, with others, to leave Ajmir when the Bengal sepoy broke into mutiny at Naseerabad, the military cantonment, and the Bombay cavalry, till then believed to be staunch, refused to charge their comrades.

MAI-SHUTR-ARABI, blood which has congealed in the belly of a young camel, after being overfed; the young camel is driven about violently, and then killed, and the blood extracted; is brought from Bombay and Delhi; supposed to benefit in impotency. One tola costs 8 rupees.—*Gen. Med. Top.* p. 147.

MAIZE, Indian corn.

Durrah shameh, . . .	ARAB.	Turkischer weizen, GER.
Yu-kan-liang, . . .	CHIN.	Mokks juarl, . . . HIND.
Yuh-mi, Suh-mi, . . .	"	Nan-ban ki bi, . . . JAP.
Yuh-shuh-shu, . . .	"	Jagung, . . . MALAY.
Pan-ku, Pan-su, . . .	"	Maiss, Kukuruz, . . . RUS.
Tyrkisk hvedi, . . .	DAN.	Trigo de India, . . . SP.
Turksche tarwe, . . .	DUT.	Trigo de Turquia, . . .

The Zea mays of botanists is much cultivated in India, and in all the islands of the Asiatic Archipelago; is, however, more reared in the

western than in the old continent. The stem and leaves, when dry, are chopped up and given to cattle. The seed is ground for bread, and eaten under the name of Chabena.

In China, large portions of the population depend on this grain. It is parched, or ground into meal for cakes. In Japan it is honoured with a place in the armorial bearings of the State.

The growers of Nepal reckon three kinds of maize: a white-grained species, which is generally grown in the low and hot valleys; and a smaller one, called Bhoteah or Murilli Moki, which is considered the sweetest of the three, but, from being less productive, is not generally grown on good lands. Maize thrives best on a siliceous, well-drained, rich soil. The finest Indian corn of the Sikkim range is grown where the soil consists of a substratum of decomposed mica from the under or rocky stratum, with a superstratum of from 3 to 6 inches of decayed vegetable matter from leaves, etc., of the ancient forests. Throughout Hindustan, June is the usual time for sowing. In Behar, about two seers are usually sown upon a bigha; in Nepal, twenty-four seers upon an English acre; in the vicinity of Poona, one and a half seer per bigha. In Nepal, the seed is sown, after one delving and pulverization of the soil, in the latter end of May and early part of June, the seeds being laid at intervals of 7 or 8 inches in the drills, and the drills an equal space apart. The drills are not raised as for turnip sowing, but consist merely of rows of the plant on a level surface. The seed is distributed in this manner with the view of facilitating the weeding of the crop, not for the purpose of earthing up the roots, which seems unnecessary. Indian corn sowing resembles that of the gohya or upland rice in the careful manner in which it is performed, the sower depositing each grain in its place, having first dibbled a hole for it, 5 or 6 inches deep, with a small hand hoe, with which he also covers up the grain.

Cattle are voraciously fond of the leaves and stems, which are very sweet, and even of the dry straw. It is said that near Kaliyachak, though the people give all other straw to their cattle, yet they burn that of maize as unfit for fodder. In Nepal, the stalks, with the leaves attached, often 12 feet long, cut by the sickle, are used as fodder for elephants, bedding for cattle, and as fuel. The maize crop within the hills of Nepal suffers much from the inroads of bears, which are extremely partial to this grain. In the Peninsula of India it is roasted as a luxury. Maize is increasing in cultivation in Java and some of the eastern islands. It is found to have the advantage there over mountain rice, of being more fruitful and hardy.—*Simmonds, Commercial Products; Schouw in Jameson's Philosophical Journal; Simmonds, Colonial Magazine*, ii. p. 309.

MAJAWAR. ARAB., HIND., PERS. An attendant at a shrine.

MAJLAS, ARAB., is an assembly; **Ijlas,** ARAB., a sederunt.

MAJMA-ut-TUARIKH, an Arabic work, descriptive of the early Arab inroads on Sind. It is an abridgment of universal history up to the 6th century of the Hijira. It was commenced in the reign of Sanjar of the Saljuki (A.D. 1126, A.H. 520), but the unknown author must have died an old man, as he notices an event of A.D. 1193.

MAJNUN. HIND. *Salix Babylonica*, weeping willow; also, PERS., a lunatic.

MAJUM. HIND., SANSK. An electuary or compound, generally; an intoxicating electuary, formed of gauja leaves (*Canabis sativa*), milk, ghi, poppy seed, flowers of the thorn-apple or *Datura*, the powder of the *Nux vomica*, and sugar, sometimes also cloves, nutmegs, mace, saffron, and sugar-candy. It is used by the Muhammadans and Hindus, particularly the more dissolute, who take it to intoxicate, to ease pain, as Kaif (intoxication), Kuwat (aphrodisiac, tonic), and Imsaq (impotence). There are many recipes, in some of which charras, opium, mastic, cinnamon, aniseed, cummin, cardamoms, are mixed with other ingredients. One kind is prepared from the larger leaves and capsules of the hemp plant, boiled in water along with ghi, sugar, and milk. When of sufficient consistence, it is poured on a slab, when it hardens into a cake, which is divided into small lozenge-shaped pieces.—*W.*

MAJUSI, or Gaor Yezdi, a religious sect in Persia who are said to worship the cow.—*Ogilvy; MacGregor*, iv. p. 303.

MAKADAM. ARAB., HIND. The leader of a gang, also the headman of a village; also called Jeth-rayat, Mahto, etc.; and in Bengal, Mandal, Makadam, Karbhari, Karbhari patel, Sirkari patel, and Patwari are used synonymously. The Patwari is likewise called the Pandya or Kulkarni; but Kulkarni is solely applied to the person who transacts the business. In some parts of the Mahratta country, the terms Grammadhi-kari and Gramlekha are used for Patel and Patwari.

MAKALLAH, the principal commercial town on the south coast of Arabia, trading in gums, hides, senna, and coffee, with India, the Red Sea, and Muscat, and importing cottons, lead, iron, crockery, rice, slaves from Berbera, Cosseir, and other ports near the town. Ras Makallah projects into the sea.

MAKAN. HIND. A house, a burial-place. Makandar, the proprietor of a burial-place.

MAKARA, a fabulous sea animal of the Hindus, representing their Capricornus sign of the zodiac, and is depicted with the head and fore legs of an antelope, and the body and tail of a fish. It is also called Asita danshtra, 'black teeth,' and Jala rupa, water-form. It is the vahana or vehicle of Varuna, the god of the ocean, and is on the banner of Kama-deva, god of love.

MAKARA - TORANAM. SANSK. The royal arch; one of the insignia of royalty of the Chalukya dynasty, when ruling at Kalian.

MAKAR SANKRANTI, a Hindu festival day, held on the occasion of the sun entering the sign Makar, corresponding to Capricorn. It occurs on the 1st of the solar month Magh. From this day, when the sun reaches the most southern, till the time of his arriving at the most northern, point of the zodiac, is called Uttarayana, and the time from his leaving the northern sign Karka or Cancer, till he again returns to Makar, is called Dakshinayana. The days of Uttarayana are reckoned lucky, and those of Dakshinayana unlucky. During the days of Dakshinayana, it is said the gates of heaven are shut, and in the Uttarayana they are open. For the good to die in the Uttarayana is considered more blessed, because they are said to get immediate entrance into heaven; but if they die in the Dakshinayana,

they have to wait outside the gates till the Uttarayana sets in. In Uttarayana, Munj — the ceremony of investing youths with the sacred triple thread—and marriages are celebrated. On the day of Makar Sankranti, just at the time of the sun's entrance into the sign, the Hindus go to the sea, accompanied by a Brahman priest, to bathe; there they rub their bodies with tila or sesamum seed, the favourite grain of the sun, and wash themselves in the manner prescribed in the Shastras. The Brahman then repeats certain prayers suited to the occasion, and closes the ceremony by receiving adoration and a present of money for himself. On their return home they invite Brahmans, present them with cups of bell-metal filled with tila seed and with money, according to the ability of the Yajaman or worshipper; some present copper pots, new dhotis, umbrellas, etc., and the whole family receives benediction from them, which is done by the Brahmans repeating certain words, and throwing on their heads a few grains of red-coloured rice. After the performance of this ceremony, they go to take their meals, which consist of sweetmeats. They invite their friends and relations to dinner; and towards evening they wear new clothes, gold and other ornaments, and frequent the houses of their friends and relations, distributing tila seed mixed with sugar. At the time of putting the tila seed into the parties' hands, they repeat these words: 'Receive these tila seeds mixed with sugar, and be friendly with me throughout the year.' All the praise and prayers offered this day are to the sun, and to no other god. The second day of Sankranti is named Kar, and is generally celebrated by the women making small presents among their own sex.

MAKHDUM SAHIB, a Muhammadan pir or saint, whose tomb in Mahim is a place of pilgrimage. His full name is Fakih Ali Makhdum Sahib.

MAKHSAN-ul-ADWIAH, a medical book, written in A.D. 1769 by Muhammad Husain Khan.

MAKKA PARIJE, a kind of marriage amongst the Coorgs. In the event of there being no male in the house, a daughter is retained to represent the family, and a husband is procured for her from another family. The husband does not become alienated from his own family, but can take a wife from his own family also, thus raising up seed for both houses. A Makka parije marriage must be made expressly for the purpose at the time; the arrangement cannot be made after the marriage.

MAKKATAYAM. See Marumakkatayam.

MAKKRUH, anything which Mahomed himself abstained from without enjoining others to do so.

MAKLEUA, the berry of a large forest tree at Bangkok, said to be the *Diospyros mollis*, which is used most extensively by the Siamese as a vegetable black dye. It is merely bruised in water, when a fermentation takes place, and the article to be dyed is steeped in the liquid and then spread out in the sun to dry. The berry, when fresh, is of a fine green colour, but, after being gathered for two or three days, it becomes quite black and shrivelled like pepper. It must be used fresh and whilst its mixture with water produces fermentation.

MAKOK, a Siamese plant, producing a sharp acid fruit, after eating which, if water be drunk,

a sweet taste is left in the mouth and palate, which remains for a whole day.

MAKRAN, a province to the east of the Persian empire, and on the borders of Sind, by the Greeks called Gedrosia or Gadoria. Cape Monz terminates a range of mountains that form the boundary between Persia and India.—*Ouseley's Travels*.

MAKSE. **AMB**. The hair-like fibre of *Arenca saccharifera*. Gomuto.

MAKTA, **ARAB**, from Kata, **ARAB**. In Maharashtra, quit-rental land held at a fixed low rate. **Maktadar**, the holder of an estate which pays a quit-rent.—*W*.

MAKTAB. **ARAB**. A Muhammadan domestic festival in India, held on the first occasion of a child's going to school.

MAKWA, a fisherman race on the Malabar coast. **Makati**, females of the Makwa.

MAL or **Mar**, a tribe scattered over Sirguja, Palamau, Belounja, etc., who are now a thoroughly Hinduized people, and resemble Hindus in appearance. They declare they came originally from Malwa. They are said to have at one time formed the bulk of the population in Palamau, but there are very few there now.

MALA, also **Malavadu**. **TEL**. The Pariah or Dher race of Telingana.

MALA. **HIND**. A necklace, a garland, a rosary. The tulasi or rudraca has the same estimation amongst the Hindus that the misletoe had amongst the ancient Britons, and was always worn in battle as a charm.—*Tod's Rajasthan*, i. p. 619.

MALA-ARAYAN. Various tribes of wild mountaineers occupy the higher hills and the mountains of Travancore. The hillmen proper number close upon 12,000, and Ulladars, a hunter race, 2829. The Vedar hunters are at the foot of the hills, and in a social condition very similar to that of the Pulayars. The tribes living towards the south of Travancore are usually designated **Kanikar**, those in the north being commonly called **Mala-Arayar** in Malealam, from Arachan, chief, or from Raja, a king; in Tamil they are called **Malei Arasar**. **Kanikaran** means hereditary proprietor of land, thus recognising their ancient rights over the forest lands.

The **Kanikar** are very short in stature and meagre in appearance. They live together in little clans, each hamlet under the patriarchal rule of a headman (**Muttukani**, the 'stem' or principal **Kanikaran**). They are wandering husbandmen; cut down a patch of forest, burn and clear it, and sow a crop, with little or no tillage. They can never tell their own ages. They are unable to count a hundred; over ten they lay down a pebble for each ten. They knot fibres of various climbing plants to express their wants. In the south they speak Tamil, and Malealam further north.

The **Mala-Arayans** have fixed villages, generally on the western slopes of the higher range of mountains or their spurs. They will not often work for hire, and are very averse to carry loads. Some of them are well to do. They are great hunters of the wild beasts and game which abound in their hills, and relate a tradition giving them special permission to eat the black monkey. From this they are called by the low country people **Kurangu tinni**, 'monkey eaters.' The Hindus regard them as beings in alliance with some powerful demonology, and presents are

abundantly bestowed in order to prevent their curses producing ill effects. Each village has its priest, who, when required, calls on the Hill (mala), which means the demon resident there, or the Pretham, ghost. If he get the afflatus, he acts in the usual way, yelling and screaming out the answers sought. They have some sacred groves in which they will not fire a gun or speak above a breath.

Ulladar are a jungle tribe of timid savages. They are without settled villages or civilised clothing, wandering within certain boundaries prescribed to each division. They subsist chiefly on wild yams, arrowroot, and wild beata. They are adepts in the use of the bow and arrow. The arrow they use has an iron spear-head, and an *Ulladar* has been known to cut a wriggling cobra in two at the first shot.

A small number of *Urali* wander over the Todupuley Hills, building their huts on trees like the *Arayana*.

The *Putayar* are a hunter race.

The *Mannan* are strange-looking mountain men, hardy, and very black, speaking bad Tamil, much employed by the Travancore Sirkar to collect cardamoms, as watchmen, etc. They rarely cultivate anything but ragi.

The hill *Pandaram* are without clothing, implements, or huts of any kind, live in holes, rocks, or trees. They bring wax, ivory, and other produce to the *Arayan*, and get salt from them. They dig roots, snare the ibex of the hills and jungle-fowls, eat rats and snakes, and even crocodiles. Some seen by Mr. Baker were perfectly naked, filthy, and very timid. They spoke *Male-alam* in a curious accent, and said that twenty-two of their party had been devoured by tigers within two monsoons.—*Mateer's Travancore*.

MALABAR, a region on the western part of the Peninsula of India, between the mountains and the sea. Its name is obtained directly from the Portuguese *Malavares*, but the people call themselves *Malaccallar*, from *Malé*, a mountain, and *Alam*, a district or country. The term *Malabar*, as usually applied by geographers, designates the whole of the narrow belt of country, rarely above fifty miles broad, west of the great peninsular chain, from *Gea* to *Cape Comorin*; it thus includes the British district of *Malabar*, and the kingdoms of *Cochin* and *Travancore* to the south. This tract is in general hilly and mountainous; a narrow strip of lowland borders the sea, frequently intersected by long sinuous salt-water creeks, and covered with cocoanut trees; the hills, which are thrown off as spurs from the main axis, often reach the sea and dip suddenly into it; they enclose well-cultivated valleys, and though generally low to the west, they rapidly rise to the east, where they join the chain. The climate of *Malabar* is characterized by extreme humidity, and an abundant rainfall during the south-west monsoon, when the temperature seldom rises above 75° , the mean of the year being 81° .

The area of the *Madras* portion is 6002 square miles, lying between long. $75^{\circ} 14'$ and $76^{\circ} 52' E.$, and lat. $10^{\circ} 15'$ and $12^{\circ} 18' N.$, and bounded on the north by *South Kanara*, east by *Coorg*, the *Neilgherries*, and *Coimbatore*; south, by the *Native States* of *Cochin* and *Travancore*; and west by the *Arabian Sea*.

Malabar is the garden of peninsular India.

Here nature is clad in her brightest and most inviting robes; the scenery is magnificent, the fields and gardens speak of plenty, and the dwellings of the people are substantial and comfortable.

Hindu legend ascribes its creation to *Parasu Rama*, who caused the sea to retire from the Western Ghats, and introduced *Brahmans* into the country, which he divided into sixty-four *gramam* or districts, and these were subsequently separated into two divisions, *Tulu* and *Kerala*, the *Kangarote* or *Chandragiri* river being the boundary. According to the *Kerala Ulpati* (a Hindu historical book), the *Malabar* coast was formerly divided into four provinces. The most northerly was called *Tulu Rajyam*, the *Tulu* kingdom. It commenced at *Gokuru* in *N. Canara*, and extended southward to *Perumbura*, near *Mangalore*. From *Perumbura* to *Pudapatnam*, near *Nelishwaram* in *S. Canara*, was called *Capa Rajyam*; thence to *Canneti*, near *Quilon*, was the *Kerala Rajyam*; and thence to *Cangakumari*, or *Cape Cormorin*, the *Muchica Rajyam*.

Chera was a small ancient state between the territory of the *Pandiya* and the western sea. It comprehended *Travancore*, part of *Malabar*, and *Coimbatore*. It is mentioned in *Ptolemy*, and may have existed at the commencement of the Christian era. It ruled at one time over the greater part of *Carnata*, but was subverted in the 10th century, and its lands partitioned among the surrounding states.

Vasco da Gama visited *Malabar* in 1498, and his successors speedily established themselves at *Cochin*, *Calicut*, and *Cannanore*. In 1656 the Dutch appeared in the Indian seas, to compete with the Portuguese for the trade of the country. They conquered *Cannanore*, and in 1663 captured the town and fort of *Cochin*, as well as *Tangacheri*, from their rivals. In 1717 they secured the cession of the island of *Chetwa* from the *Zamorin*. But in the next half century their power began to wane: *Cannanore* was sold to the *Cannanore* family (*Bibi*), represented at that time by *Bamali Raja*, in 1771; *Chetwai* was conquered by *Hyder* in 1776; and *Cochin* captured by the British in 1795.

Malabar, when overrun by *Hyder Ali*, was made tributary to *Mysore*, but after the war of 1791-92, the treaty of 1792 transferred part of it to the British.

The French first settled in 1720 at *Mahé*, in 1752 obtained a footing at *Calicut*, and in 1754 acquired *Mount Dilli*, and a few outposts in the north, all of which fell into the hands of the British in 1761. Their frequent wars with the British ended in the destruction of their commerce in the east, *Mahé* having been thrice taken and restored. The British had established themselves in 1664 at *Calicut*, in 1683 at *Tellicherry*, and by 1714 at *Anjingo*, *Chetwai*, and other commercial factories. *Tellicherry* became their chief entrepôt for the pepper trade.

The rainfall is on the average 120 inches. The rainfall in June, July, and August averages 80 inches, or two-thirds of the total fall for the year. Cattle suffer from murrain and foot-and-mouth disease, but no epidemic rinderpest has been recorded. Gold is washed for in all the rivers of *Malabar*; but in 1877 to 1881 it was not found in sufficient quantity to repay the expenditure for European machinery and labour.

A great Brahman colony, known as the Namhuri, are large landed proprietors; there are small tribes of Jews, and Tamil-speaking Hindus have come in considerable numbers into this region. Other languages spoken are Malenlam and Tulu, with some Canarese; and in the northern part of the coast, the Konkani.

Juan Ribeyro mentions that in his time, 1656, there were fifteen kings ruling in the low tract of country between the sea and the ghats, in the short space between the Salt River and Cape Comorin; and that to this minute division of the country was due the facility with which the invaders overran it.

After the pacification of the country in the early years of the 19th century, the sub-collector, Mr. H. Baber, turned his attention to coffee-planting in Wynad; and by 1840 this important industry was fairly established. Since 1850 it increased greatly.

Malabar has many Muhammadan Moplahs, active, intelligent men, engaged in commerce. They have several times in the 19th century risen in rebellion, feeling aggrieved by the laws which regulate Hindu property, and they have displayed on these occasions much fanatical bravery.

The *Charumar* race are predial slaves, whose name Wilson derives from Chera, Malcalam for the soil; they follow the rule of Alya Santana. They are very diminutive, with a very black complexion, and not unfrequently woolly hair. The *Makkavan* is a fisherman caste, also called Makwa, and their women Makate. The toddy-drawer is called *Katti Karan*. The *Ashary* is the carpenter caste. In common with the brassfounder, gold and iron smiths, they continue the practice of polyandry, but in civil inheritance follow from father to son, and not the practice of maternal descent, *descensus ab utero*. The elder brother marries, and the wife is common to all the brothers. If a junior wish to marry, he must live apart and set up business apart; but if any of his younger brothers reside with him, his wife is common to them. The *Panni Malayan* are a servile caste. The *Adiyar* is a slave, serf, or vassal, who lives under the protection of a raja or religious establishment. The Malcalam Sudras, of whom the better class are called Nairs (or lords), are the bulk of the respectable population,—the landholders, farmers, soldiers, officials, and rulers of the country. The *Nair* are the ruling race of Malabar. They were formerly accustomed to duelling. The practice was called *Ankam*, and hired champions were often substituted. The *Pulichi* is a forest tribe, who are deemed so unclean that they are not allowed to approach other castes. The *Uradi* or *Urali* are a servile race. The *Tiyar* race are toddy-drawers and agriculturists. The *Pulayan* or *Pulian* is a servile caste, often slaves; this is doubtless the Puller.

In South Malabar, descent to sons is the law, but in North Malabar, the Nair, the artisans, carpenter, brass-smith, blacksmith, goldsmith, the Tiyar, who are toddy-drawers, and the Makwa, who are fishermen, are all polyandrists, and descent of property goes in the female line. In North Malabar this law of descent is called *Marumakkatayam*, and the Muhammadan Moplah has conformed to this usage. In Canara, a similar law, called *Alya Santana*, or nephew inheritance, prevails, and is in practice more strictly carried

out than in North Malabar. In North Malabar, the adherents to *Marumakkatayam* form united family communities, termed *Tarwaad*, the senior member of whatsoever branch is the head of the family, and is termed *Karnaven*; the other members are styled *Anandraven*. The remotest member is acknowledged as one of the family, and entitled to maintenance if living under subordination to the head of the family, and taking part in their religious observances; for the women there is nothing analogous to the state of widowhood as existing elsewhere,—whether in alliance with men or not, they reside in their own families. The Nair marries before he is ten years of age, but though he supports, he never associates with his wife, who receives at her pleasure any men, provided they be not of lower birth. Consequent on this form of descent, a Nair does not know who his father is. In law, property is held to vest in the females only; practically the males are co-sharers with the females. In default of males, females succeed to the management of the family property. In some families, the management devolves on them preferably to the males, and the senior female takes it. There is, however, a growing tendency to convey property from father to son, arising from the gradual abandonment of polyandry. The connubial connection in question is called in Malabar '*Goonu-dosham*' (*Goonu*, good, *Dosham*, evil—for better for worse). In Travancore it is styled *Mundu-vanga*, viz. *Mundu*, cloth, *Vanga*, receiving, where the girl taken is of ripe age, and her consent must be obtained. Personal acquaintance thus precedes the union. The hour selected is 8 P.M.; there is an assemblage of friends; the man presents the woman with a *Mundu*, or white muslin cloth, in a corner of which, in North Malabar, a small sum of money is tied. The girl either goes to the man's house, or remains in her own and is visited by him there. Each party is unrestricted as to the number of such connections that may be formed, but these ordinarily do not exceed two or three. The descent being in the female line, the parentage of the father is immaterial. The *Marumakkatayam* law is not followed in North Malabar by the *Aka-Podwal*, a class of pagoda servants, nor by the Brahmins of North Malabar or of Canara; but in Travancore law, only the eldest brother of a Brahman's family is allowed to marry with his equal, and the other brothers form other connections. In the Tuluva country, the Brahman widow can devote herself to the temple, and reside outside or inside its walls. If within the walls, she is a servant of the idol, and receives the visits of men of her own caste only; the offspring of such, if boys, are called *Moylar*, and the girls are married to them. But if she elect to reside outside the walls, she must pay a monthly sum to the pagoda, and may cohabit with any man of pure descent. This, however, is disputed.

Malabar is a term applied erroneously to the Tamil language. Malabar black-wood is *Dalbergia latifolia*. Malabar civet cat, *Viverra civettina*, *Blyth*; Malabar creeper, *Ipomoea tuberosa*; Malabar hemp, *Crotalaria juncea*; Malabar nightshade, *Basella rubra*; Malabar nut, fruit of *Adhatoda vasica*; and Malabar sago palm is *Caryota urens*.

MALABAR' HILL. With the exception of Malabar and Worli Hills on the western, and Chinchpugly Hills on the eastern shore, the land

in Bombay island is flat, and a very large area is still below the level of the sea at high water, and is annually flooded during the rainy season. Malabar Point, in Bombay, has the ruins of a very ancient black stone temple, and has many fragments strewn about with a variety of images sculptured on them. Below the Point, among the rocks, there is a cleft esteemed very sacred, where the believing Hindu obtains regeneration or a second birth. He comes to the spot and deposits all his clothing, then, passing through the aperture, he is supposed to be born again, and ablution in the tank and gifts to the priests complete the washing away of his sins.—*Chow Chow*, p. 60.

MALABATHRUM, among the writings of the ancients, was applied to a leaf imported from India, and employed by them both as a medicine and as a perfume. From it there was prepared both an oil and a wine, by maceration of the leaves in these menstrua. Many fabulous statements accompany the earliest accounts, as that of Dioscorides, by whom it is stated that by some they are thought to be the leaves of the Indian Nard; that they are, moreover, found floating on Indian marshes, and that they grow without roots (lib. i. c. 11); and that (lib. ii. c. 10) it is by feeding on them that the animal affording the *Onychia* or *Unguis odoratus* of the ancients becomes aromatic. In the works of the Arabs, *Saduj* is given as the synonym of *Malabathrum*; and *Saduj*, both in Persian works and in India, is applied to *Tej-pat* or *Tej-bal*, or the leaf of the *Tej*, which is from *Cinnamomum albiflorum*, growing in the dense forests of the valleys of the Himalaya, from Rangpur to the Dehra Doon, in lat. 30° N. Dr. Hamilton found the same name applied to the *C. tamala*, *C. nitidum*, as also *C. aromaticum*. They are analogous in all respects to bay leaves produced by the *Laurus nobilis*. The physician *Garcias da Horto*, in his work on the Aromatics of India (first published at Goa in 1563), pointed out that *Malabathrum* was the *Tamalapatra*, the leaf of a species of cassia.—*O'Sh.*; *Eng. Cyc.*; *Yule, Cathay*; *Powell*.

MALACCA, a town on the sea-coast of the Malay Peninsula, which gives its name to a district, forming part of the Straits Settlements under the British Colonial Office. The light-house is in lat. 2° 11' N., and long. 102° 16' E. The mean length of the province is 40 miles, the average breadth being 25, comprising an area of 1000 square miles, with a population of 77,756. *Malacca* derives its name, according to Malay history, from the *Malaka* tree, *Jambosa Malaccensis*. The country a few miles inland is formed of undulating hills, moderately elevated, called *Malacca Hills*, and $7\frac{1}{2}$ leagues E. by N. $\frac{1}{2}$ N. From it rises the high mountain *Gunong Ledang*, called also *Queen Mount*, also *Mount Ophir*, about 7000 feet high. Except *Goa*, *Malacca* was the earliest European settlement in the east, and was at one time the great emporium of trade from the innumerable islands of the Eastern Archipelago, but has seen many changes since it was wrested from *Muhammad Shah* by the Portuguese in 1511; and in 1547 the salvation of this city from the *Achinese* was ascribed to the sudden appearance of *Saint Francis Xavier*, the apostle of India, who was then on his pilgrimage through the east. After remaining in quiet possession of Portugal for 180 years, it fell into the hands of the Dutch,

who held it for 74 years, when the British took possession, and their first act was to demolish the fort, erected at a vast cost by the Portuguese, and much improved by the Dutch. In 1818, *Malacca* was again ceded to the Dutch, who finally exchanged it with the British for *Bencoolen* and other settlements in *Sumatra*. In 1825, the British, by treaty with the Dutch, agreed to hold no possessions in the Archipelago south of the equator, and the Dutch, vice versa, north of the equator.

The great mineral product is tin. In the great tin mining district thousands of Chinese work,—some by surface washings, others by following up veins deep into the bowels of the earth, and others by grinding the quartz so richly impregnated with the stanniferous ore that is almost metallic in its matrix. Water power, somewhat in principle of the Egyptian wheel, is the usual means resorted to to raise the accumulating water from the pits, the chain of buckets running down an inclined plain often exceeding a hundred feet. The ore is smelted in small furnaces, a rapid white heat being produced by the action of a double bellows made from the trunk of a tree hollowed out, and the ore, as in iron, runs out at an aperture below the furnace into moulds prepared for it. The tin is sold on the spot for 25 dollars a pikul; the price in England is double that. Near *Malacca* are thermal springs, 137° being the average heat throughout the year. There are six of these springs in a square of about 100 feet, perpetually steaming and boiling over. A powerful odour of sulphurated hydrogen is evolved; the water is clear, strongly impregnated with iron and sulphur, and held in great repute both as a vapour and plunge bath, chiefly in cutaneous maladies.

At the census of 1881 the population was found to be—Malays, 57,474; Chinese, 13,450; Kling, 2874; Arabs, 303; Boyanese, 135; Bugis, 85; Javanese, 339; Siamese, 6. The district produces many valuable timber trees.—*Census*.

MALACCA CANE. Dr. Griffith believed these canes to be produced from the *Calamus scipionum* of *Lourcero*, the *Heo-tau* of *Cochin-China*. They do not occur about *Malacca*, but are imported from *Siak*, on the opposite coast of *Sumatra*. Some of them are simply mottled or clouded, others of a brown colour, in consequence, it is said, of their having been smoked. The most slender specimens, with the longest internodes, are the most valued.—*Seeman*.

MALACCA STRAITS, a seaway leading from the Bay of Bengal into the Archipelago. They are bounded on the north by the island of Singapore. There are three banks in it,—the *One-Fathom Bank*, on which is a light vessel; the *Sumatra* or *Third Bank* is to the N.W. of the *Carimons*. Towards the entrance of the Strait of *Malacca*, near the *Nicobar* and *Acheen* Islands, and betwixt them and *Junk Seylon*, there are often very strong rippings, particularly in the S. W. monsoon. There is no perceptible current, yet the surface of the water is impelled forward by some cause. They are seen in calm weather approaching from a distance, and in the night their noise is heard from a considerable distance before they are near, alarming to persons unacquainted with them, for the broken water makes a great noise when the vessel is passing through it. They beat against a ship with great violence, and pass on, the spray

coming on deck; and a small boat could not always resist the turbulence of these remarkable rippings.—*Horsburgh.*

MALACHITE.

Luh-tsing, . . . CHIN. | Shih-tsing, . . . CHIN.
Shih-luh, . . . " |

This carbonate of copper is found in many parts of China, where it is used as a pigment and for making ornaments. The mines of Siberia at Nichno Tagilak have afforded great quantities of this ore. A mass partly disclosed measured at top 9 feet by 18 feet, weighing 40 tons, and the portion uncovered contained at least half a million pounds of pure malachite. Other noted localities are Chessy in France, Sandlodge in Shetland, Schwartz in the Tyrol, Cornwall, Australia, and the island of Cuba. This mineral receives a high polish, and is used for inlaid work, and also earrings, snuff-boxes, various ornamental articles, slabs for tables, mantelpieces, and vases, which are of exquisite beauty, owing to the delicate shadings and radiations of colour. At Versailles there is a room furnished entirely with tables, chairs, etc., wrought in malachite. Malachite is easily distinguished from turquoise by its shade of colour and much inferior hardness. It is a valuable copper ore when abundant, but it is seldom melted alone, because the metal is liable to escape with the liberated volatile ingredient, carbonic acid. In India it is rarely worn as a gem, and only by Europeans.—*Eng. Cyc.; Smith.*

MALACHKA CAPITATA. *Linn.* A plant of Bengal, Kutch, N.W. Provinces, Sind, and the Panjab. *M. rotundifolia* is a plant of S. America, belonging to the natural order of Malvaceæ. Marshy places within the tropics are considered favourable to its growth. The fibre is prepared in precisely the same way as jute, but requires to be steeped directly it is cut. The fibre is in length from eight to nine feet, has a silvery appearance, with a peculiar lustre, and is almost as soft as silk. In passing the fibre through the machinery, damped with oil and water, as is commonly done with Bengal and Konkani jute, yarn was produced strong enough and nearly equal to that made from the second quality of Bengal jute. If the plant is carefully grown and well looked after, the fibre would then no doubt rank fully equal to Bengal and Bombay jute. The fibre, if carefully prepared, would command a ready sale at 3-12 to 4 rupees per Indian maund.

MALAGASY, the people of Madagascar.

MALAGUETA, or Grains of Paradise, is also written Mellighetta, Malagueta, Manighetta, and has been applied sometimes to two kindred species of *Amomum* exported from different parts of the West African coast (*Am. Granum-Paradisii* and *Am. Melegueta*), and sometimes to the seeds of the *Unoua Ethiopica* or Ethiopic pepper. It appears to be one of the former which Gerarde and Mattioli describe as the greater cardamoms or melegette, for Gerarde states they were said to come from Ginny, and were called in England Graines of Paradise, the Grana-paradisii of authors.—*Yule, Cathay*, i. p. 88.

MALAI ARASAR. *TAM.* Lit. hill kings; a tribe inhabiting the foot of the Animallay Hills, very useful in the forest, preparing elephant ropes from the vaca nar, assisting in the clearing of brushwood, and the repair of roads, etc., for which they are paid. See Malé Arasar.

MALAMUM, an order of darvesh, supposed to resemble speculative freemasons.

MALAM KOLLE? a kind of wax produced from the wild plantain.—*Ind. Arch.* 1853, p. 267.

MALANG, a Muhammadan mendicant who lets his hair grow loose and uncombed.

MALANGI. *BENG.* A salt maker.

MALARIA, a climatic influence unfavourable to health. It is more frequently observed in dense moist forest lands, valleys and gorges of mountains, but even dry arid tracts are not free from it. It has been remarked along the Mahaveliganga, a few miles from Kandy, that during the sickly season, after the subsidence of the rains, the jungle fever generally attacks one face of the hills through which it winds, leaving the opposite entirely exempted, as if the poisonous vapour, being carried by the current of air, affected only those aspects against which it directly impinged. A malarious part of India is the Terai, near the Himalaya, also the Wynad.

MALATI and Madhava is the title of a drama by Bhavabhuti, in which the social life of the Hindu race is largely represented. It was translated by Professor Wilson. Malati puts on her bridal dress in presence of the deity. It was customary also amongst the Greeks for the intended bride to pay her adoration to some deity before her marriage, usually to Diana; but at Athens no virgin was allowed to be married before worshipping Minerva, who was the tutelary deity of the city. Madhava's passion is described as

'Hear'd, felt, and seen, possesses every thought,
Malati alone fills every sense, and pants in every vein.'

The passion of Malati is equally intense with that of Juliet; but her unconquerable reserve, even to the extent of denying her utterance to him she loves more than life, is a curious picture of the restraint to which the manners of Hindu women were subjected, even whilst they were in enjoyment, as appears from the drama, of considerable personal freedom. Megasthenes tells us that the Indians of his time did not communicate their metaphysical doctrines to women, thinking that, if their wives understood their doctrines, and learned to be indifferent to pleasure and pain, and to consider life and death as the same, they would no longer continue to be the slaves of others. We find from the later ceremonial sutras (*Srauta* and *Grihya* sutra) that women were not allowed to learn the sacred songs of the Vedas, the knowledge of which constituted one of the principal acquirements of a Brahman before he was admitted to the performance of the sacrifices. Menu ix. and 18 says, 'Women have no business with the text of the Vedas, thus is the law fully settled; having therefore no evidence of law, and no knowledge of expiatory texts, sinful women must be as foul as falsehood itself, and this is a fixed rule.' The practice of the wife worshipping the husband is very ancient. In the drama styled *Ratnavali*, or the Necklace, Vasavadatta, after worshipping the image of the deity, her attendant says—

'The worship of the divinity concluded, be pleased, madam, to pay adoration to your lord.

'Vasava. Where are the flowers and unguent?

'Kanch. Here, madam.'

On which Vasavadatta worships the king. This is conformable to the *Bhaviṣyottara Purana*.

which directs, 'Having offered adoration to the mind-born divinity, let the wife worship her husband with ornaments, flowers, and raiment. Thinking internally with entire complacency, This is the god of love.'—*Hind. Theat.* ii. pp. 67, 122, 275; *Muller, Hindu Literature.*

MALAUN, a hill fort in the Hindur State of the Panjab, situated in lat. 31° 12' N., and long. 76° 52' E., 4448 feet above the sea, on the crest of a ridge bearing the same name, and rising from the left bank of the Sutlej to the sub-Himalayan range. It was taken by the British; the engineers constructed a road practicable for heavy artillery up the difficult heights, and a battery being formed close to the fort, the Gurkhas surrendered, and evacuated, by the terms of capitulation, all the hill states west of the river Kali.—*Imp. Gaz.*

MALAVIKA and Agninitra, a drama by Kalidasa. The text has been printed at Bombay and Calcutta; it has also been printed and translated by Tullberg; a German translation by Weber, an English one by Tawney, and a French one by Foucaux.—*Dowson.*

MALAY. The Malay race are found in the Malay Peninsula, and in the western islands of the Archipelago. In the Maldives the people speak the Malay language, and the Hova of Madagascar are said to bear in their features some resemblance to the Malays.

Peschel says (p. 355) that when Roderigues, Mauritius, and Bourbon were discovered by

Europeans and still unpeopled, Madagascar was peopled by Malays; and Crawford says (*Grammar and Dictionary*, i. p. 148) very clear traces of a Malayan tongue are found in the languages of the island of Madagascar, an island some 3000 miles distant from the nearest part of the Malayan Archipelago, and only 240 miles from the eastern shore of Africa. Peschel adds that the similarity of words of the Malagasy or Madagascar language with Malay words had been observed by Sir Joseph Banks and by Hervas the philologist; and Wilhelm von Humbolt's researches into the Kawi language have shown that Madagascar was peopled by Malays.

In 1847, Mr. Spencer St. John estimated the population of the Malay Peninsula and Eastern Archipelago at 18,436,622, as under:—

Malay Peninsula,	562,482	Sumbawa, . . .	200,000
Sumatra and adjacent islands, . . .	4,964,770	Floris, . . .	278,000
Java and islands, . . .	10,060,580	Solor, Adenatti, Lombatti, . . .	157,000
Bali, . . .	900,000	Sumba, . . .	425,000
Lombok, . . .	250,000	Timor, . . .	639,000

The latest estimate by Behm and Wagner gives the population at 63,969,000:—

Independent Malacca, . . .	300,000
Straits Settlements, . . .	390,000
Sunda Islands and Moluccas, . . .	28,867,000
Philippines, . . .	6,300,000
Netherland India and N. Guinea and Papuan Islands, . . .	27,962,000
British North Borneo, . . .	150,000

The Malay Races and Languages have been given (Asia, p. 620) by Professor A. H. Keane, as under:—

Malayan Proper.		Sub-Malayan, West.	Sub-Malayan, East.	North-East Branch.	South-West Branch.
Orang Malayu.	High Malay.	Atyeh.	Central Sundas.	Tagalog.	Malagasy—
	Meuangkabau.	Atchin.		Bisaya, Ilocano.	Hova.
	Palembang.	Toba.		Pampango.	Betsileo.
	Banjermassin.	Ankola.		Igorrote.	Ibara.
	Borneon Seaboard.	Dairi.		Ibalao, Sufilin.	Betsimis-
	Billiton.	Pakpak.		Pangasinan.	araca.
	Bangka.	Singkal.		Ibanag, Hanes.	Sihanaca.
	Penang.	Simpang-kanan.		Idayan, Gaddan.	Tanala.
	Singapore.	Simpang-kirie, etc.		Dadaya.	Tankay.
	Malacca States.	Rejang.		Apayao.	Ikongo.
Orang Benua.	Orang Laut.	Sarawi.		Mananag.	Sakalava.
	Jakun.	Lampung.		Tinguan.	Behisotra.
	Udai.	Maruwe.		Ibilao, Ifugao.	Isamahety.
	Sakai.	Nias.		Longote, Zambal.	Tandrona.
	Basini.	Batu.		Zebuan, Manobo.	Autankara.
	Sabimba.	Banyak.		Mandaya.	
	Mintira.	Engano.		Coyuyo.	
	Pungau.	Nassau.		Calamiano.	
	Sulatar.			Panayano.	
	Anambas.			Illanun.	
Orang Benua.	Abung.	Kawi.		Sulu.	
	Kubu.	Javanese.		Palawan.	
	Lubu, etc.	Sundanese.		Yukan.	
				Pepukhwan.	
				Sideia.	
				Jakel.	
				Tilloi.	
				Favorlong.	

In that region are two distinct races. There are men of brown or copper complexion, and lank hair, who are the most advanced inhabitants of the Archipelago. There is another race who, from their resemblance to Africans, have been called Negroes and Negritos. The Malays apply to those of the latter race best known to them, the people of New Guinea, the epithet of Puwa-puwa or Pa-puwa, which is an adjective meaning frizzly or crisping, and is equally applied by them to any object partaking of this quality. The term Negro, from the Latin Niger, is also employed

to designate the black-skinned races, of whom mention is now made. But from the Andaman Islands eastward to the races in the Pacific, of the people generally classed as Negroes there are at least 12 varieties, differing from each other in physical appearance, some being pigmies under five feet, and others large and powerful men of near six feet. Keeping this marked difference in remembrance, to the Malay type, and to the Papuan type respectively, all the people of the various islands can be grouped. The Asiatic races include the Indo-Malay, and all have a

continental origin; while the Pacific races, including all to the east of the Malay (except perhaps some in the Northern Pacific), are derived not from any existing continent, but from lands that now exist or have recently existed in the Pacific Ocean. On drawing a line to separate the Malay and Papuan races, it almost coincides with that which divides the zoological regions, but juts somewhat eastward of it, as the maritime enterprise and higher civilisation of the Malays have enabled them to overrun from the west a portion of the adjacent region on the east, to supplant the original inhabitants, and to spread much of their language, their domestic animals, and their customs far over the Pacific into islands where they have but slightly or not at all modified the physical or moral characteristics of the people.

Peschel classes the Malay people amongst the Mongoloid races. He believes with Moritz Wagner that the shape of the skull, the form and colour of the face, as well as the whole physical constitution of the Malay race, is so nearly allied to the Mongolian that in similar apparel the two races are hardly distinguishable.

Mr. Wallace believes that the Malay and the Papuan races have no traceable affinity to each other; that the Asiatic races include the Malays, and all have a continental origin; while the people of the Celebes and Pacific races in the islands on its east are derived from lands which now exist or have recently existed in the Pacific Ocean. He allots the Eastern Archipelago amongst two races, and shows their islands thus:—

Indo-Malayan Regions.	Austro-Malayan Regions.	Polynesian or Pacific Regions.	
The Malayan Group.		The Papuan Group.	
Sumatra.	Lombok.	Floris.	Ki Islands.
Lingen.	Sumbawa.	Sumba or	Ceram.
Banca.	Celebes.	Handana.	Banda.
Billiton.	Moena.	Adenara.	Amboyna.
Java.	Bouton.	Solor.	Batchian.
Madura.	Sula-mangola.	Lomboka.	Oby.
Bali.	Sula-basi.	Rutar.	Gilolo.
Bawean.	Part of	Ombay.	Morty.
Borneo.	Bourou.	Wetter.	Aru.
Sulu Archipelago.	Part of	Rotte.	Vorkai.
Palawan.	Ternate.	Seratty.	New Guinea.
Philippines.		Babbar.	Australia.
Samar.		Timor Laut.	Myfor.
Mindanao.		Larat.	Jobi.
		Tenember.	Mysol.
		Part of	Waigiou.
		Bourou.	Salwatty.
		Part of	Sook.
		Ternate.	Biak.

The cradle of the Malay race was the plains of Menangkabau, in the interior of Sumatra, from whence they emigrated and pushed their conquests, or formed settlements to their present extensive limits. They formed colonies in the Malay Peninsula and in Borneo, the former probably, and the latter certainly, occupied before their arrival by rude tribes of the same race of men, who could offer no effectual resistance. In the remoter islands, or in those occupied by powerful and civilised nations, the Malays appear only as settlers and not colonists, as in Java and the principal islands of the Philippine Archipelago.

The Malay Peninsula, called Tannah Malayu, or Land of the Malays, with the exception of a few diminutive Negro mountaineers, is occupied by Malays or by men of the same race, for the

several wild tribes in the interior speak the Malay language, and have the same physical form as the Malays, although not calling themselves by this name, and their language contains many words that are not Malay. Nearly the whole of the coast of Borneo is occupied by Malays, who are supposed to have first emigrated to that island about the date of the reign of the Saxon king Athelstan.

The annals of several ancient Malay states point to Palembang as the original land of the Malays. They afford various indications of a close connection between it and Java, and mention Java invasions and settlements long anterior to the modern conquest of Palembang by Majaphit. From their concurrent tenor, it appears that the royal dynasties of Menangkabau, Malacca, and other states, traced their descent from Palembang. It may be inferred that it was in Palembang that the Malay race and language received their earliest and deepest impressions from Hindu and Java influences, and that the Indian monarchical form of government was first engrafted on the native Sumatran institutions, which are of a mixed patriarchal and oligarchical form.

Mr. Crawford has regarded the *Malays* as consisting of four great tribes and a few minor semi-civilised tribes; and a number of others who may be termed savages. The four great tribes are:—

The *true Malay* races, the Malay proper, who inhabit the Malay Peninsula, and almost all the coast regions of Sumatra and Borneo. They all speak the Malay language, or dialects of it; they use the Arabic characters in writing, and they are all Muhammadans in religion.

The *Javanese*, who inhabit Java, part of Sumatra, Madura, Bali, and part of Lombok. They speak the Javanese and Kawi languages, which they write in a native character. They are of the Muhammadan religion in Java, but Bali and Lombok is Brahmanical.

The *Bugis* are the inhabitants of the greater part of Celebes, and there seems to be an allied people in Sumbawa. They speak the Bugis and Macassar languages with dialects, and write these in two different native characters. They are all Muhammadans.

The *Tagala* of the Philippine Islands are the fourth great Malay race; many of them profess Christianity; their native language is Tagala, but they speak Spanish.

Moluccan Malays, who inhabit chiefly Ternate, Tidore, Batchian, and Amboyna, may be held a fifth division. They are Muhammadans, but they speak a variety of curious languages, which seem compounded of Bugis and Javanese, with the languages of the savage tribes of the Moluccas.

The *Savage Malays* are the Battak and other wild tribes of Sumatra, the Dyak of Borneo, the Jakun of the Malay Peninsula, the aborigines of Northern Celebes, of the Sulu Island, and of part of Bouru.

Peschel and Friedrich Muller have proposed other classifications, but neither of them have resided among the races under notice.

The *Malay tongue* is now, and was, when Europeans first visited the Archipelago, the common language of intercourse between the native nations among themselves, and between these and foreigners. It is in the Archipelago what French is in Western Europe, Italian in

Eastern, Arabic in Western Asia, and Hindi in Hindustan. All nations who hold intercourse of business with strangers must understand it, and all strangers must acquire it. This is the case in Sumatra, where other languages are also vernacular, in Java, in Celebes, in the Moluccas, in Timor, and in the Philippine group. Mr. Crawford attributes the spread of this language to the enterprising or roving character of the people, whose native tongue it is, as also its own softness of sound and simplicity of structure and consequent facility of acquirement.

The *Malay family* approximates closely to the ruder or more purely Mongolian type of Ultra-India, and the identity in person and character is accompanied by a close agreement in habits, customs, institutions, and arts, so as to place beyond doubt that the lank-haired populations of the islands have been received from the Gangetic and Ultra-Indian races. The influx of this population closed the long era of Papuan predominance, and gave rise to the new or modified forms of language which now prevail. The rude maritime tribes who frequent the coasts and islands of the Malay Peninsula, and amongst whom several distinct tribes are distinguishable by their physical characters, speak a language mainly Malay, but with differences in pronunciation. The Malay race, as a whole, very closely resembles the East Asian populations from Siam to Manchuria. The Malays are frequently quite Burmans in appearance, but the normal and least mixed Malays are more Binua and also more Siamese than the Western Burmans.

The colour of all the Malay tribes is a light reddish-brown, with more or less of an olive tinge, not varying in any important degree over a wide extent of country. The hair is equally constant, being invariably black and straight, and of a rather coarse texture, so that any lighter tint, or any wave or curl in it, is an almost certain proof of the admixture of some foreign blood. It is plentiful on the head, but other parts of the body are smooth. The moustaches alone are retained on the face, other hairs being removed by pincers. The stature is tolerably equal, and is always considerably below that of the average European,—five feet two or three inches being considered the average height of a man, and that of a woman is a few inches shorter. Their bones are large and clumsily put together, but strongly knit; arms and legs usually short compared with the length of the body; and the whole frame robust, and capable of much labour. The body is fleshy and muscular, legs remarkably so, thighs so large as to be unwieldy. Malays seldom become obese; the breast well developed, the feet small, thick, and short, the hands small and rather delicate. The head is round, and elongated at the summit, broad at the back, and set on a stout, thick neck. The facial angle seldom exceeds 50 degrees, while that of the European is seldom less, and sometimes is nearly ninety, or perpendicular. The face is a little broad, and inclined to be flat; the forehead is broad and rather rounded, the brows low; the eyes long and narrow, rather deep set, black or dark hazel in colour, and seldom clear about the white. The nose is rather small, not prominent, but straight and well shaped, the apex a little rounded, the nostrils broad and slightly exposed;

the cheek-bones are rather prominent; the mouth large; the lips broad and well cut, but not protruding; the chin well formed; ears large and ill-shaped; jaws wide and square; teeth regular, large, and white, unless discoloured by lime and gambier. The Malays, when mature, are certainly not handsome, but in youth up to 15 years of age both boys and girls have pleasing countenances, and in their way almost perfect. Women soon show signs of old age; they become wrinkled and haggard after bearing a few children, and in old age are hideous. With shades of difference, not to be fixed in words, this, with the exception of a few Negroes, is a description which applies to all the inhabitants of Sumatra, the Peninsula, Java, Borneo, Celebes, the Moluccas, Timor, and the whole Philippine group.

In *character*, the Malay is impassive. He exhibits a reserve, diffidence, and even bashfulness which is in some degree attractive, and leads the observer to think that the ferocious, blood-thirsty character imputed to the race must be grossly exaggerated. He is not demonstrative. His feelings of surprise, admiration, or fear are never openly manifested, and are probably not strongly felt. He is slow and deliberate in speech, and circuitous in introducing the subject he has come expressly to discuss. Children and women in the company of men are silent, and are generally quiet and obedient. When alone, the Malay is taciturn, he neither talks nor sings to himself. When several are paddling in a canoe, they occasionally chant a monotonous and plaintive song. He is cautious of giving offence to his equals, he does not quarrel easily about money matters, and practical joking is utterly repugnant to his nature. The higher class of Malay are exceedingly polite, but this is compatible with reckless cruelty and contempt of human life, which is the dark side of their character. They are proud, and, if ill-treated, revengeful; but under generous treatment are gentle, kind, humane, grateful, docile, and faithful. Capable of the warmest attachments, and yet impelled to madness and the commission of the most revolting deeds by real or imaginary unkindness. They are dutiful children and kind parents. They treat their aged kinsmen with the greatest kindness, and feel it a duty to relieve the wants of an indigent relation. Old men and women are always regarded with respect.

Dr. Oxley described the character of the unsophisticated Malay as remarkable for its simplicity and honesty; having no artificial wants, they are satisfied and content with what would be considered positive destitution by a Chinese; they are consequently apathetic and inactive, and will not for any amount offered to them labour beyond their usual habits or customary routine; they have little of any speculative turn; they have a regard for truth, and may generally be depended upon in their statements. What has so often been written of their revengeful spirit, he says, is much exaggerated; polite in the extreme, according to their own ideas, they never indulge in abuse one towards the other, the only reply to any deviation from this rule is the *kris*, for which they will watch their opportunity, and most certainly not afford their adversary any advantage it is in their power to deprive him of. This is their code of honour, and, being fully

aware of it amongst themselves, provocation is seldom given, and satisfaction as seldom required. When goaded, however, to the necessity, they become perfectly reckless, and should discovery attend the deed, they attempt no refutation, but sell their lives at the utmost cost they can to the captors. 'Too often have I known the officers of police compelled to shoot them on these occasions. Such is one species of amok, and how offenders of this description are to be dealt with can admit of but little doubt; but there is another variety of the Orang Beramok vastly different, and by no means the least frequent, which requires discrimination on the part of the medical jurist to prevent irresponsible persons suffering the penalty of the injured law. For instance, a man sitting quietly amongst his friends and relatives will, without provocation, suddenly start up, weapon in hand, and slay all within his reach. I have known so many as eight killed and wounded by a very feeble individual in this manner. Next day, when interrogated whether he was not sorry for the act he had committed, no one could be more contrite; when asked, "Why, then, did you do it?" the answer has invariably been, "The devil entered into me, my eyes were darkened, I did not know what I was about." I have received this same reply on at least twenty different occasions; on examination of these monomaniacs, I have generally found them labouring under some gastric disease or troublesome ulcer, and these fearful ebullitions break out upon some exacerbation of the disorder. Those about them have generally told me that they appeared moping and melancholy a few days before the outbreak. The Bugis are by far the most addicted to the amok. They are a bold, self-reliant, maritime people of Celebes, of which they occupy the northern part, and they are known, in consequence, as the men of Macassar. The Bugis, originally from the same stock as the Malay, are superior to all other natives of the Archipelago in their spirit of adventure. They are a brave, active, haughty, fierce, and vigorous race. They love justice, and are faithful to their bonds, but seldom forgive injuries. Under the name of Macassars, they form the flower of the colonial troops in the Dutch service; they are bold hunters, and, mounted on their brisk little horses, drive the deer through the woods, and capture it with a lasso. The Bugis have been the greatest colonists as well as the principal traders of the Archipelago. The ingenuity of the savage and the amenity of the civilised man, appear united in them. They have received the Koran, but not abjured the practices of their ancient faith,—the dark old idolatry once universal in the Archipelago. Stones and trees, painted red, still share their devotions with the invisible god of Islam. Women are treated honourably among them,—a distinction in their manners not yet effaced by the Muhammadan social law. They determine many disputes by single combat, but never avenge themselves by personal assassination. The Sulu race, on the contrary, have no idea of putting themselves on a footing with their antagonist, but always attack him in the dark or off guard. Both the Malayan and Bugis nations are maritime and commercial, devoted to speculations of gain, animated by a spirit of adventure, and accustomed to distant and hazardous enterprises; while the Javans, on the contrary, are an agricultural race, attached

to the soil, of quiet habits, and contented dispositions, almost entirely unacquainted with navigation and foreign trade, and little inclined to engage in either.

Religion.—Malays have largely become converts to Muhammadanism. The earliest conversion recorded was that of the Achinese, the nearest people of the Archipelago to the continent of Asia. This was in 1206 of our era. The Malays of Malacca were not converted until 1276; the inhabitants of the Moluccas not until 1478, and the people of Celebes not until 1495, only the year before Vasco da Gama passed the Cape of Good Hope. Thus the earliest conversion of these islanders took place 574 years after the death of Mahomed, and long after the first zeal of his followers had evaporated.

The Malays were not coerced into Muhammadanism, nor have instances of violent conversion been frequent in later times. The Arabs and other Muhammadan missionaries have conciliated the natives, acquired their language, followed their manners, intermarried with them, and their superiority of intelligence and civilisation was employed only for the instruction and conversion of a people, the current of whose religious opinions was ready to be directed into any channel into which it was skilfully diverted.

In the Malay Peninsula the race are in part Muhammadan, and in part pagan in the more impracticable parts. To this day there are a few mountaineers in Java still professing a kind of Hinduism, and the Javanese retain numerous of their old pagan superstitions, and have added those of their subsequent religion. They people the air, the woods and rivers, with various classes of spirits. They have the praying or fleeting ghosts; the barkas-a-han, kabuka-male, and wowe, evil spirits; and the damit and dadun-gawu or tutelary spirits. They now consider the Hindu gods of their former belief not as imaginary beings, but as real demons, and have added the jan of the Arabs. The Malay of Borneo firmly believe in ghosts. If a man die or be killed, they are afraid to pass the place.

Learning.—Malays can hardly be said to have an indigenous literature, for it is almost entirely derived from Persia, Siam, Arabia, and Java. Arabic is their sacred language. They have, however, a celebrated historic Malay romance, called the Hang Tuah, parts of which are frequently recited in their villages after sunset prayers by their village raconteurs, and some Arabic and Hindu romances stand high in popular favour. They have one Malay historical composition, dated A.H. 1021. The conversion of the Sumatra Malays to Muhammadanism arose mainly out of their commercial intercourse with Arabia.

Customs.—Malays rub noses, in lieu of the kissing of Europe. Most of the advanced nations of the Asiatic islands are gamblers, and the little fighting fish of Siam and cock-fighting are largely betted on. In the Archipelago, in Bali, Lombok, Celebes, and the Philippines, cock-fighting is quite a passion. The only material exceptions are the Javanese. The passion for cock-fighting is indeed impressed in the very language of the Malays, which has a specific name for cock-fighting, one for the natural spur of the cock, and another for the artificial spur, two names for the comb, three for the crow of the cock,

two for a cock-pit, and one for a professional cock-fighter. The passion is nowhere carried further than in the Spanish dominions of the Philippines. There it was licensed by the Government, which derived from it a yearly revenue of about 40,000 dollars, or about £8000.

Malay women of the Peninsula, when engaged to be married, have their teeth filed down about a fourth part.

War.—Sulu, Mindanao, and the crowd of islands extending from Mindanao to the N.E. coast of Borneo, and separating the Mindoro from the Sulu sea, were the great seat of piracy in the Archipelago.

The Ladrões, or pirates of the Eastern Archipelago, consisted wholly of the inhabitants of the free Muhammadan states in Sumatra, Lingin, Borneo, Magindanao, and Sulu.

The Malay pirate prahu or prow are stockaded, and armed with heavy guns, generally the mariam and lelah, to which last the Malays are very partial; also matchlocks, long spears, pointed nibong stakes charred at the end, and others cut short for throwing when at close quarters, and large stones. The signal for attack is the sound of a sort of gong, called tawa tawa.

The Malay are the great manufacturers of weapons of war. They have the sword, the kris and spear, brass and iron cannon, of sizes called miriam, rantaka, jala rambang, ekor lotong, and lelah. They have also the blunderbuss and matchlock, satengar and pemura.

The Baju wear the baju ranti, or chain jacket, and a shield of a long or round form. They swear by their krisses, for which they have a great veneration, and on going into battle, drink the water in which they have been dipped, uttering imprecations on the foe.

In Pulo Nias, the war jacket and cap is of thick leather, covered with the black horsehair-like eju of the Arenga saccharifera palm. They have a spear and short sword. The Orang Laut have the limbing or lance, the tampuling, a large hook, the kujore, broad-headed fishing spear, and the Seranpong prong.

The Sumatran races have also the rudus and pemandap swords and suvar dagger; the Batta race wear the kalassan and jono swords, also the tombak leda and terjing, the last a long curved knife, which is used to cut up human flesh, according to Mr. Anderson, and guns, matchlocks, the kris, and ranjow.

Games.—Sumatrans and Burmese have the sepa raga, or cane football game. It does not require strength or courage, but is an exhibition of skill, dexterity, and activity. The ball is hollow and elastic, about 4 in. in diameter. The players are unlimited in number, and stand in a circle about 6 feet apart from each other. The ball is thrown into the air, and as it descends, one of the players strikes it up again with hand or foot, shoulder, elbow, or knee, arm, forearm, thigh, or leg. Sometimes the ball descends beyond the circle, and is dexterously struck back again with the sole of the foot, without the player altering his position. Expert players will keep the ball from touching the ground for a considerable time.

The Malays are exceedingly fond of music, but the drum seems to be their sole native instrument, though they have the violin. They have a drama called Myong, in which young lads take the part

of women. It is supposed to be of Siamese origin, as none but natives of Siam engage in it. Music from drums and brass instruments accompany the performance. The actors move about to the sound of the instruments.

Dress.—Malays set the fashion of dress to the islanders, and the principal portions of the apparel are worn by the Malays, the Bugis, the Javanese, and most of the smaller races all over the Archipelago. The sarong is worn by both sexes; it is a cloth two yards long and four feet broad, and is wrapped round the lower part of the body from the waist, like an unsewed gown. It is often the sole dress worn in the house and courtyard.

The saluar or sluar is a pair of drawers or trousers, invariably worn when abroad; there are several kinds, the Achinese, the Chinese, the Singapore sluar, and that of the Bugis, the last reaching the middle of the thigh.

The baju or jacket. Its arms have several shapes, and have respective names, Baju sikat, Baju chari, and Baju pesa sabla or Baju tutop iman. The Baju tangan-kachang is a long gown reaching to the ankles, worn by old women; Baju bastrob is a vest or shirt; Baju ayit karang resembles a shift.

The saluar, sarong, and baju are the essential parts of their dress.

The bang-kong, or waist-cloth, or sash, is often worn. It is of cotton or silk.

The dustar or justar, a kerchief, is worn as a turband. The turband and flowing dress of the Arab are worn by all who have performed the Mecca pilgrimage.

The kris is never allowed to be visible in the presence of a superior or equal.—*Bikmore's Trav.*; *Crawford's Grammar*; *Journ. Indian Archip.*; *Latham's Ethnology*; *Logan*; *Le Moniteur*, 1847; *McNair*, p. 233; *Newbold*; *Peschel*; *Wallace*; *St. John's Ind. Archipelago*; *Marryat's Ind. Archipelago*; *Earl's Ind. Archipelago*; *Quarterly Review*, No. 222; *A. H. Keane's Asia*.

MALAYANESIA. The name Indian Archipelago being too long to admit of being used in an adjective or in an ethnographical form, Mr. Earl suggested the term Indu-nesia, but rejected it also in favour of Malayanesia. The purely geographical term Indonesia was, however, suggested by Mr. Logan, as we thus get Indonesian and Indonesians for the Indian Archipelago or Indian islanders.

MALAY ARCHIPELAGO is a term sometimes applied to the multitudinous islands of the Archipelago to the east of the Straits of Malacca, though this is more usually called the Archipelago, also the Eastern Archipelago. It is sometimes applied to the Mergui Archipelago along the Tenasserim coast, in the Bay of Bengal.

MALAY PENINSULA, or Tauna-Malayu, extends for 500 miles from the southern extremity of Tenasserim almost to the equator, the island of Singapore being in lat. 1° 41' N. Its width varies from 50 to 150 miles, and the entire area will be about 83,000 square geographical miles. The possession of it is chiefly divided between the British and the Siamese. Engagements have been formed by the British with the Kedah State, which is tributary to Siam, and with the Independent States of Perak, Selangor, the Confederate States of Rambowe, Sungei Ujong,

MALAY PENINSULA.

MALAY PENINSULA.

Johole, Sree-Menanti, and Johore. The districts of Tringanu and Kalantan are also protected by the British Government, under the treaty of Bankok. A forest-clad mountain chain, rising in Perak to ascertained heights of 8000 feet, runs down its whole length near the centre, with extensive outlying spurs and alluvial plains on both sides. In the early part of the 19th century, Newbold thus estimated the population:—

Kedah,	50,000	Johole,	2,000
Perak,	35,000	Muar,	2,400
Selangor,	12,000	Orang Binua Johole, 1,000	
Johore,	25,000	Orang Binua of the	
Pahang,	40,000	rest of the Penin-	
Kemaman,	1,000	sula,	25,000
Tringanu,	30,000	Penang and Province	
Kalantan,	50,000	Wellesley,	120,000
Patani, about,	30,000	Malacca,	46,882
Sungei Ujong,	3,200	Singapore,	60,000
Rambowe,	9,000		

On the west side of the Peninsula are the Native States of Kedah, Perak, Selangor, and Sungei Ujong, the last three of which are under British protection; and on the east are Patani, Kalantan, Tringanu, and Pahang; the southern extremity being occupied by the state of Johore. The interior, which is scarcely at all known, contains towards its centre the Negri Sembilan, a confederation of eight (formerly nine) small states. The northern and eastern states of Kedah, Patani, Kalantan, Pahang, and Tringanu are more or less tributary to the Siamese empire, which at intervals has exacted a golden rose, the token of vassalage, from every state in the Peninsula.

The British possessions in the Peninsula are the detached provinces of Wellesley, with the island of Penang, also the Ding Dings, Malacca, and the island of Singapore, and in 1881 their respective population was as under:—

	Penang, Prov. Well., Ding Dings.	Malacca.	Singapore.
Arabs,	574	...	...
Europeans,	674	40	2,768
Eurasians,	1,597	2,213	3,094
Chinese,	67,502	19,741	86,766
Malay,	84,724	67,468	22,114
Tamil,	25,094	...	...
Armenians,	32	...	...
Jews,	32	...	...
Eastern races, . . . . .	...	4,697	...
	190,597	93,579	139,208

The East India Company acquired Penang in 1775, Province Wellesley in 1798, Singapore in 1823, and Malacca in 1824. These were under the rule of the E. I. Company until they were consolidated in 1867 into one government under the British dominion, and are known as the Straits Settlements.

The Ding Dings, a lively group of small islands, ceded to Britain by the Pangkor treaty.

The mainland of the Peninsula, with the exception of a few diminutive Negro mountaineers, is occupied by Malays, or by men of that race, for the several wild tribes in the interior speak the Malay language, and have the same physical form as the Malays, although not calling themselves by this name, and their language containing many words that are not Malay.

The wild tribes have been vaguely estimated

at 8000 to 11,000 souls. The Semang race are found in the forests of Kedah, Tringanu, Perak, and Selangor. Jakuns inhabit the south part of the Peninsula, from about Selangor on the west coast, and Kemaman on the east, and extending nearly as far as Singapore. Orang Binua signifies men of the soil. All these various wild tribes are ordinarily classed under this general and expressive appellation, Orang Binua or Orang Utan, and in Perak the Sakei; there are also the Udai, Hala, Belanda, Besisik, the seafaring Selong, and the seafaring Akkye or Rayat Laut or Orang Laut, men of the sea.

The Semang are about the same height as the Malays, but their hair, instead of being lank and straight like theirs, is short and curly, though not woolly like that of the African Negro, and their skins are of a dark brown, nearly black. Their noses incline to be flat, their foreheads recede, and their lips are thick. They are singularly shy, and shun intercourse with men of other races.

With the Sakei or Jakun, Orang Binua or Orang Utan, the mouth is wide and the lips are large, the lower part of the face projects, the nose is small, the nostrils are divergent, and the cheekbones are prominent. The hair is very abundant and long, and usually matted and curly, but not woolly. They have broad chests, and very sturdy, muscular limbs. They are much shorter in stature than the Malays, the men in some of the tribes rarely exceeding 4 feet 8 inches in height, and the women 4 feet 4 inches.

The Rayat or Orang Laut, subjects, or men of the sea, live almost entirely upon fish. They are altogether restless and impatient of control. They are passionately fond of music, and are most ingenious in handicrafts, specially in boat-building.

Kedah or Quedah, called in Siamese Muang Sai or the Sai kingdom, extends from the Trang river, in lat. 7° 20' N., to the Krian, in lat. 5° 10' N., which separates it from Perak. The purest Malay is written and spoken in this state, being often in the Archipelago influenced by mixture with other tongues. The highest detached hill is Gunong Gerni or Kedah peak. Penang was sold by the raja of Kedah for £2000 a year, which is paid at the present day to his successor. When the Kedah prince ceded Penang to the British he represented himself as independent, and as such was treated by the British.

Several tribes are within its limits, the Semang and Udai in the forests of the north; the Rayat Utan, the Jakun, Sakei, Hala, Belanda, and Besisik in others to the south; while the Akkye or Rayat Laut (lit. people of the sea) dwell upon the shores and islets of the Peninsula. Wherever scattered, they live totally apart from the Malays, and differ from them widely in person, habits, and religion; in short, are of a much lower grade in the scale of civilisation. The Malays themselves sometimes class the various tribes under the general appellation of Orang Binua, men of the soil.

The names of inland places are chiefly Binua terms. There is a striking resemblance in feature between the Binua and the Malay, and scarcely less in their respective languages. Many Malay believe the Udai tribe are a class of Jakun. The Tuanku Puteh of Rambowe informed Newbold that the Udai are thinly scattered over the states

of Jellabu, Pahang, Tringanu, and Quedah, and resemble in feature the darker variety of Jakun. Their size is represented as smaller, and their habits more savage. According to Sir S. Raffles and Mr. Anderson, the Semang of Quedah has the woolly hair, protuberant belly, thick lips, black skin, flat nose, and receding forehead of the Papuan. Mr. Anderson described the Semang of Perak as resembling those of Quedah in personal appearance, but speaking a different dialect. They possess, he says, the same curling black hair, are a little darker in colour, and have not the thick lips of an African; they subsist by hunting, and make huts of the branches, and cloths of the bark of trees, shunning the haunts of more refined beings. They are numerous in Quedah, and reside generally on or near mountains, such as those of Jerrei and Juru, and are found in Tringanu, Perak, and Selangor. They live in rude huts, easily removed from place to place, constructed of leaves and branches.

Perak lies between lat. 4° and 6° N. It is famed for its tin mines. Gold is met with in all its rivers. Perak (pronounced Payrah) is the richest and most important of the states of the Peninsula, as well as one of the largest. Its coast-line is about 125 miles in length. Perak river is a most serpentine stream. Its population, 971,940, is chiefly Chinese and Malays. Tin is the most abundant of the mineral products of Perak. Gold is found in tolerable quantities even by the Malay easy-going manner of searching for it, and diamonds and garnets occur.

Selangor is a small Malay state lying between lat. 2° 34' and 3° 42' N. Its coast-line is about 120 miles in length; population about 20,000. Its rivers, up to 1871, were shelters for pirates. In Selangor and Perak are isolated hills of limestone from 80 to 1000 feet in height. At Batu are magnificent limestone caves with stalactites and stalagmites. The roof of one cavern is 355 feet from the floor.

The *Negri Sembilan* or Nine States are inland, south of Selangor. These have been independent since the breaking up of the kingdom of Johore.

Sungei Ujong is mainly an inland state, access to its very limited seaboard being by the river Ilanggi, its area about 700 square miles. Its aboriginal tribes, the Besaik, Jakun, Orang Bukit, Rayat Laut, Rayat Utan, and Semang, have been largely pushed aside by Malays. Its population in 1883 was 12,000, of whom the Chinese were 10,000. It is rich in tin. It is the great mineral product of the Peninsula, and is largely washed by the Chinese. The tin districts which have been most worked of late years have been those at Klang in Selangor, at Laroot in Perak, and at Linghie near Malacca. Gold, garnets, and sapphires likewise occur, and it is said diamonds also. — *Rev. P. Faver, Apostolic Missionary, Malacca; Osborn's Quedah; Newbold's British Settlements; Sonnerat, ii. p. 177; St. John's Ind. Archip.; Journ. Ind. Archip.; J. L. Bird, Golden Chersonese.*

MALBUK, ARAB., confused, possessed, ecstatic, is a term applied to a Muhammadan permanently insane, or overcome by religious excitement. It is the ecstatic condition described in 1 Samuel x. 5-11, when Saul reached the hill of God. Behold, a company of prophets met him; and the

Spirit of God came upon him, and he prophesied among them.

MALBUS. ARABO-HINDI. Clothing; clothed; pl. Malbusat. Malbus-khas, an annual investment of fine muslins, formerly furnished from Dacca, for the royal wardrobe at Dehli.—*W.*

MALCOLM. Three brothers of this name are known in the history of the East Indies. Sir Pulteney Malcolm, who rose to the rank of Admiral in the British navy, and in 1798 was employed in cutting out of vessels at Manilla. Sir Charles Malcolm, born in 1782, also a British naval officer, served under his brother Sir Pulteney at Manilla in 1798. He saw much service during the war with France. He was knighted by Lord Wellesley at Dublin in 1826, became Rear-Admiral in 1837. He was appointed as the first Commander-in-Chief of the Indian navy in 1827, where he served till 1838, and instituted several extensive and important surveys along the shores of the Arabian Sea, Bay of Bengal, and Indian Ocean.

Sir John Malcolm, born 1769, entered the Madras army (1782) at the age of 13. When the Nizam's army took the field in Mysore against Tipu Sultan, Captain Malcolm accompanied it as Political Agent, and after the fall of Tipu Sultan and the reduction of Seringapatam, he was associated with General Arthur Wellesley, Colonel Close, and Captain Munro in the commission appointed for the settlement of Mysore. He was on four occasions sent as ambassador to the court of Persia in 1799; again in 1808, but was not allowed to advance beyond Bushire; a third time whilst Sir Harford Jones was there; and he went a fourth time on a supplementary mission, but it was a mere pageant and very costly, though from it resulted his *History of Persia and Pottinger's Baluchistan*.

During the war against the Pindara and Mahrattas, which lasted from the 5th November 1817 to the 13th May 1819; in all the operations of the war, as second in command at Mehidpur, 21st December 1817, in the pursuit of Baji Rao and of Apa Sahib, and in the final reduction of the fortress of Aisargarh, he was the prominent authority. At the close of that war he was appointed to the civil and military command of Malwa, and in the year 1827 he became governor of Bombay. He was an active, able man, of large stature, with much energy and great bonhomie. He was a voluminous writer. Amongst his other books were—*Sketch of the Political History of India from 1784 to the present time*, London 1826; *Observations on the Disturbances in the Madras Army in 1809*, London 1812; *History of Persia from the most early period to the present time*, London 1815; *Report on the Province of Malwa and adjoining Districts*, Calcutta 1822; *Instructions to Officers acting under his Orders in Central India*, 1821, London 1824; *Sketch of the Sikhs*; *History of Persia*; *Letter on the Persian Army*; on the Present (1810) Condition of Persia; *Memoir of the Kajar Family*; on the Trade of the Persian Gulf; *Sketches of Persia*.

MALCOLMSON, JOHN GRANT, M.D., F.R.S., F.G.S., a Madras medical officer from 1823 to 1840. He wrote on *Beri-beri*, on the *Rheumatic and Neuralgic Affection*, termed by the natives burning of the feet; on the *Fossils of the Gawilgarh Range*, and on the *Basaltic District of India*, in the *Madras Journal of Literature and Science*;

also on the Effects of Solitary Confinement of European Soldiers in Warm Climates. While geologizing in Gujerat and Kandeah, he died of hepatitis at Dhoolia, 23d March 1844.

MALDAH, a British district in the Lieutenant-Governorship of Bengal, occupying an eastern projection of the Bhagulpur division. It lies between lat. $24^{\circ} 29' 50''$ and $25^{\circ} 32' 30''$ N., and long. $87^{\circ} 48'$ and $88^{\circ} 33' 30''$ E. Three of its towns have been its capitals. Gaur is said to have been abandoned on the occurrence of a great pestilence. Its ruins, lying between the Mahananda and the Ganges, are scattered over an area of more than 20 square miles. The foundation of this city is referred back to the remotest antiquity. It was the Hindu metropolis of Bengal before the Musalman conquest, and continued to be the capital of the Afghan invaders for at least three centuries, and its name distinguishes a class of languages and a tribe of Brahmans. Pandua or Perua, which lies about 20 miles north-east from Gaur beyond the Mahananda, superseded the latter city as the seat of government during the reigns of five successive Afghan monarchs, towards the close of the 14th century. Tandan Taugra succeeded Pandua. As far back as 1686 the E. I. Company had a silk factory here. In 1770, English Bazar was fixed upon for a commercial residency; the buildings of which, strongly fortified after the fashion of those days, exist to the present day.

The two staple manufactures of the Maldah district are silk and indigo. The weaving of silk is said to date back to the Hindu kingdom of Gaur, and the peculiar cloth known as Maldahi has been for generations a speciality of external commerce. The English had a factory at Maldah at least as early as 1686. The population comprise the aboriginal Kharwar, Dhangar, Koch, Pali, Rajbausi, Chain, and Bind; also the Hindu Kaibarta, Nagar, Teli, Goala, and Tiar, with a few Muhammadans.

MALDEO, died S. 1671 (A.D. 1615); he had twelve sons. His death formed an important epoch in the annals of the Rahtor race. The banner of the Moghul empire floated over the punchranga, the five-coloured flag, which had led the Rahtor from victory to victory, and had waved from the sandhills of Amerkot to the salt lake of Sambhar; from the desert bordering the Garah to the peaks of the Aravalli. Thenceforward the Rahtor princes were required to maintain a contingent of their proud vassals, headed by the heir, to serve at the Moghul's pleasure.—*Tad*, ii. p. 30.

MALDIVE ISLANDS, Zabiyah-ul-Mohli, a vast group of islands, estimated at 1200, extending southward from lat. $7^{\circ} 6' 30''$ N. to $0^{\circ} 42'$ S. A memoir of them, by Lieuts. J. A. Young and W. Christopher, I.N., is given in *Bom. Geog. Trans.*, 1836-1838. These islands and rocks have about 60 miles of breadth, the islands being formed into large groups, which the natives call atoll or atollon.

The most northern is Henwandoo Pholo Atoll, 12 miles by 7, contains 24 islands, of which 7 are inhabited, with a population of 760.

Tilladoo Matte Atoll, 35 miles in extent, has 38 islands, all the northern of which are inhabited.

Malcolm Atoll contains 100 inhabitants; many ships have been wrecked on it.

Milladood Madou Atoll contains 101 islands, of which 23 are inhabited, with a population of 1700 or 1800.

Phaidee Pholo Atoll, 10 miles south of Milladood Madou, has about 10 islands near it.

Mahlop Mahdoo Atoll extends from lat. $5^{\circ} 1'$ to $5^{\circ} 59'$ N., in long. $72^{\circ} 55'$ E., has 4 small islands on its south.

Ari Atoll has a number of small islands on its eastern boundary.

Male Atoll has near it Male Island or King Island, with a population of 1500 or 2000. It is unfavourable to the health of European strangers.

Cardiva or Cardoo, in lat. $4^{\circ} 58' 30''$ N., and long. $73^{\circ} 25'$ E., has 200 inhabitants.

South Male Atoll contains 22 islands, of which only 3 are occupied with 200 people.

Pha-lee-doo Atoll is situated between lat. $3^{\circ} 19' 30''$ and $3^{\circ} 41'$ N.

Molouque Atoll is 15 miles broad from east to west.

Nillandoo Atoll extends from lat. $2^{\circ} 40'$ to $3^{\circ} 1' 30''$ N.

At its south extreme is a group of 20 islands, and there are detached small islands on the boundary.

Coollo Mandoo Atoll, Adou Matte Atoll, Suadiva or Hooahdoo Atoll may be named.

Phoowa Moloku Islands, the most south-easterly of the Maldivo islands, is 2 miles long; it has 300 or 400 inhabitants, who are fishers and weavers.

Aldoo Atoll is the south extreme of the Maldivo chain of islands. Its south point is in lat. $0^{\circ} 41' 30''$ S., and long. $73^{\circ} 5'$ E.

The group extend 466 geographical miles in length, and 46 or 48 miles in breadth. Between the islands the water is of great depth, but on the surrounding reefs the waves beat with great violence. The reefs have openings which admit ships to enter, and though the water inside the atolls is generally shallow and calm, the depth is sufficient to allow vessels to pass from one side to another. The soil is sandy, all the islands are densely clothed with palms, fig trees, bread-fruit trees, and a thick jungle covers them all. Indian corn, sugar-cane, and millet are grown in a few.

Large numbers of vessels have been wrecked upon the islands, the steamers *Sea Gull* (in 1879) and *Consell* (in 1880). As a rule, shipwrecked people are well received by the Maldivians, and the Ceylon Government occasionally have an opportunity of reciprocating that kindness by providing for Maldivians wrecked on the Ceylon coasts. The islands are inhabited by 30,000 or 40,000 people. They trade with India, Ceylon, Chittagong, and Singapore, carrying in their peculiar ships coconuts, salt fish, coconut oil, coir, jagari, coral, ornamental mats, tortoise-shell, and cowries, and import grain, cotton, silk, and tobacco. The coir is noted for its light colour, fineness, and comparative strength. Maldivo mats, for delicacy of pattern and permanence of dye, are perhaps unsurpassed in the world.

The Maldivians construct their own quadrants, and translate into their own language the nautical tables. The people are quiet and inoffensive. Their ruler is styled Sultan of the thirteen atolls and 12,000 isles. Upon the acquisition of Ceylon by the British in 1796, the inheritance of the suzerainty over the Maldives fell to them by the free-will of the Sultan. The present Sultan sends an ambassador to the Governor of Ceylon annually, and his arrival at Colombo, and formal journey from the wharf to the Government House, is one of the most curious sights to be had in the capital. Maldivian etiquette requires the ambassador to bear with both hands on his head the silver salver containing his sovereign's letter (in a double envelope of coloured silk and spangled muslin) and two tiny silk bags of ambergris and sea cocoonut. The management of all state and

revenue matters is entrusted by the Sultan to vizirs, and he frequently consults with them. Justice is dispensed in the house of the Fadiyari or Kazi, who is head of the church and chief magistrate, and sometimes, in important cases, in the king's palace. With the education imparted to the children is the reading and writing of the Koran. Three different writing characters are found on the tombstones, the Dowchi Hakura, the Arabic written from right to left, and the Gabali Tana similarly written, and the last is the common dialect of all the atolls. It is said to be Malay. Muhammadanism has been the accepted religion of the Maldivians for at least six centuries, but side by side with it there has continued to exist an older creed—not the less real because disowned—in demons and spirits, spells, charms, and the like. Every man in his lifetime provides for himself a burying-place.—*Darwin; Lieuts. J. A. Young and W. Christopher, I.N., in Bombay Geog. Trans., 1836-1838; Encyc. Brit.; Mr. Bell's Report.*

MALÉ, in Coorg, a class of people whose mothers have forfeited their caste by reason of adultery after widowhood.

MALÉ or Paharia are hillmen of Rajmahal, whence their other designation Rajmahali. The Rajmahal hill country extends from the banks of the Ganges at Segrigalli, in lat. 25° 15' N., and long. 87° 3' E., to the Brahmani river and the boundary of the Birbhum district, a distance of 70 miles. To the south of the Brahmani, the hills continue to the river Dwaraka as the Ramgarh Hills of the Birbhum district.

The Rajmahal Hills form a kind of knot at the extreme eastern point of the hill country of Central India, dividing Bengal from Behar, and the people are known as Malé. They are to the east of the Oraon, and are entirely different from their neighbours the Santal.

In the year 1832, the British Government, in order to protect the Malé race, marked off by pillars their territory. The cordon or ring-fence encloses a tract called the Daman-i-Koh, and within it the Malé dwell. It is 295 miles in circumference, containing 1366 square miles, of which 900 are said to be culturable. At the census of 1872, there were returned 53,866 Paharia, 191,462 Santal, and 18,985 of other races. The rest of the hill country is called the Santal Parganas, and, including the Daman-i-Koh, its area is 5456 square miles, the population aggregating 1,257,281 souls, of whom 455,513 were Santal. The bulk of the Santals are in the Bhagulpur and Bardwan divisions (569,643). The total in all India, 1,087,202, of whom 203,264 are semi-Hinduized.

The Rajmahali is less cheerful than the Santal, less industrious, and does not join in the dances to which the people of the Mundah stock are so devoted. The Malé are better looking than the Santal. It was the Malé race amongst whom Mr. Cleveland successfully laboured to impart to them settled habits. They are quiet cultivators, and formed the bulk of the corps formerly known as the Bhagulpur Hill Rangers. Ghatwal estates are particularly numerous in the Bhagulpur and Birbhum districts adjoining the Rajmahal Hills on either side. The estates pay no revenue, but are held on the condition of guarding the passes against hill robbers, murderers, and cattle-lifters.

The Malé language abounds in terms common to

the Tamil and Telugu, and contains so many Dravidian roots of primary importance, though it also contains a large admixture of roots and forms belonging to the Kol dialects, that Dr. Caldwell considers it had originally belonged to the Dravidian family of languages. Test words show an identity of language among the Rajmahali on the east, and the Maira in the remote jungles down to the Godavery, and the Gond, who live along the Satpura as far west as Nimar and Malwa.

The Paharia arrange themselves in three tribes, the Malér, the Mal, and the Kumhar; the first retain more of the habits of their ancestors than the others, and they eat the carcasses of animals which die of disease.

The houses are built of wattled bamboo. A long bamboo is fixed in the ground in front of each house to ward off evil spirits.

The Malér call themselves the Asal Paharia, pure Paharia. The people of the southern or Ramgarh Hills, called Mal, have another division called Kumhar, who abstain from cow's flesh, from flesh of animals which die a natural death, and will not partake of food that has not been cooked by themselves; repudiating all notions of consanguinity with the impure feeding Northerners.

The Malér is short of stature and slight of make, and wears his hair well oiled and combed in a knot on the top of his head. The features are of a mild Tamil type. The Oraon custom of excluding the unmarried adults of both sexes from the family residence is followed by the Paharia, and the bachelors' hall and maidens' dormitories are institutions of the Rajmahal Hills, as well as of the Chutia Nagpur highlands. Colonel Dalton says the hill lads and lasses form very romantic attachments; they work together, go to market together, eat together, and sleep together. But if they overstep the prescribed limits, a sacrifice of animals is enforced at their expense in atonement. But this is fanciful.

In their marriages, the groom, with the little finger of his right hand, marks the girl on the forehead with red lead, and then, linking the same finger with the little finger of her right hand, he leads her away to his own house. Colonel Dalton says polygamy is practised, and if a man leave several widows they can become the wives of his brothers or cousins, but only one to each.

The Malér have a firm belief in the transmigration of souls; they call God Bedo, and the title affixed to the name of all their deities is Gosai. They have priests, Demones, and priestesses, Khiendri, who, when officiating, become wildly excited. They make wooden images, which are honoured for a season as idols, and annually renewed, the old ones being thrown away as rubbish. In each village, as in nearly all Hindu villages, a shed is put up for the tutelary gossain, in which stones are placed to represent him and his attendants. There are two processes of divination. Lieutenant Shaw calls one Satani, the other Cherin. The former is a test by blood sprinkled on bet leaves. The Paharia bury their dead, but a priest's body is carried on a cot into the forest, and placed under the shade of a tree, where it is covered with leaves and branches, and left. The reason assigned by them for treating Demones exceptionally, is that their ghosts

are exceedingly troublesome if the bodies are laid in the village cemetery. The bodies of people who die of contagious diseases are similarly disposed of.—*Logan; Dalton's Bengal; Tickell; Hodgson.*

MALEALAM or Malayalam, also called Kerala, a region in the extreme S.W. portion of the Peninsula of India, extending from the Chaudragiri river, in lat. 12° 29' N., to Cape Comorin, in lat. 8° 4' 20" N. It is fabled in Hindu legend to have been reclaimed from the ocean by the now deified warrior Parasu Rama, and within historic times it has had many dynastic changes. The Zamorin of Calicut, the Bibi of Cannanore, the raja of Travancore, the Portuguese, Dutch, French, and the Muhammadan Sultan Tipu, have held sway there, but the present paramount power is the British, and it is now partitioned into the British districts of South Canara and Malabar, the States of Cochin, Travancore, and the Bibi of Cannanore. The region is a series of hills and valleys, which explains the name Malealam, meaning literally hill and dale.—*Malai*, a mountain, *Alam*, a dale. Kerala, its other name, is of doubtful origin, one derivation being from *Keram*, a coconut, another being from a wise ruler of that name.

The prominent race are the Maleala Sudra or Nair. Of them, the 1881 census returned 664,260, and the people speaking the Maleala language at 4,847,681.

Malealam, Malearma, Malayarma, or Malayalam is the vernacular, but Tamil is spoken by 16·8 per cent. of the population, these two tongues being used by 99·2 per cent. of the inhabitants, Tamil chiefly south of Trevandrum, and Malealam to the north; but all along the southern portion of the west coast, a large part of the population is of foreign blood. There are settled here numerous smaller tribes or castes of Indian races, of Aryan and non-Aryan and Semitic descent, speaking Canarese, Gujarati, Hindustani, Konkani, Mahrati, Nagari, Tamil, Telugu, and Tulu, with foreign races speaking Arabic, Hebrew, English, French, Portuguese. Malayarma is spoken along the Malabar coast on the western side of the ghats or Malealam range of mountains from the vicinity of Mangalore, where it supersedes the Canarese and the Tulu, to Trevandrum, where it begins to be superseded by the Tamil. Malealam was separated from the Tamil before the latter was cultivated and refined, and, from Brahmanical influence, has since had an infusion of Sanskrit words more than in any other Dravidian language, the fewest of such being in the Tamil. In all the southern languages, save the Malealam, the pronoun is postfixed in a contracted form to the verb. Some of the postfixes are also made honorific by slight euphonic changes.

In this tract the Nair race occupy large holdings; the maharaja of Travancore is a Nair, and there are many of the Moplah or Mappila Muhammadans. The Mappila in N. Malabar, known also as the Chulia, write Malealam with the Arabic character, but with additional vowel marks for e, o, and i, and some of the consonants have additional dots. In S. Malabar they use the old Tamil character called *vattazhuttu*.

The Moplah, written also *Mapillai*, possibly derived from the Tamil words *Ma*, mother, *Pilla*, a son, are all Muhammadans, and are descendants of Arabs who visited or settled in Malabar; and

Wilson supposes that the Malabar women who bore children to them, from such casual or permanent intercourse, ignorant as to who of the race of foreigners were the fathers, styled the children sons of mothers; but the probability is that the law of descensus ab utero, *marumakkattayam*, followed by the mothers, was prevailing from prior ages. The Moplah are active, enterprising, and possess much landed property. Their origin is explained by the fact that till lately Tyatti, or women of the Tiyyar race, did not lose caste by forming connections with rich and respectable foreigners, though, since two or three have risen in the Government service to position (one was a deputy collector) they have put a stop to this practice. The Mappila race have several times risen in insurrection, seemingly from agrarian grievances. Hindu landlords kept the land in their own hands or leased it out to the Mappila at high rents, and then took advantage of legal rights to turn them out.

MALEALI, a cultivator and shepherd race of mountaineers, about 3500 in number, occupying 79 villages in the rude valleys scattered over the Shevaroy Hills. They are said to have emigrated from Conjevaram in the 13th century. The houses are circular in form. They speak the Tamil, and are Hindus. They cultivate the soil, but have herds of cattle.

MALE ARASAR, hill kings, are hill tribes inhabiting the Southern Ghats. They speak corrupt Malealam in the northern part of the range, where the Malealam is the prevailing language, and corrupt Tamil in the southern, in the vicinity of Tamil-speaking districts. The Male Arasar tribes inhabit the range of ghats between Tinnevely and Travancore, in small communities of five or six families, and probably do not exceed 500 in all. Their huts consist of a few sticks covered with bark and thatch. They live on wild forest products, but, since A.D. 1850, they have been cultivating potatoes for their own family use. They have a few fowls and dogs. As a race they are diminutive and pot-bellied, their crania small and pear-shaped, rising to a point about the junction of the occipital bone and the sagittal suture; a low retreating forehead, long, tangled, black hair, flat nose, and small eyes. They are averse to intercourse with strangers. They catch wild animals with pits and traps, and use bows and arrows. They are miserably low in the scale of civilisation. See *Malai Arasar*.

MALEGAON, in lat. 20° 32' 18" N., and long. 74° 36' 51" E., is a town and military cantonment in the Nasik district of the Bombay Presidency, built on an affluent of the Girna. The mean height of the village is 1587 feet.—*Wil.*; *Schlag*.

MALEGAWA, a Buddhist temple at Kandy, contains the *Delada* or reputed tooth of Buddha.

MALEKUDI, literally hill inhabitants, races dwelling on the skirts of the Malabar forests who gather the wild produce of the forests. They are known in some parts of the forests as Mahratta, also as Malemaylaru, Kudubi, Gowda, Koragar, Davalu, Nangaru, and Holyar. They sell the produce to the bazar men, but the sale proceeds are so trifling as barely to suffice for their food and their very limited clothing. In bad seasons they live on roots, fruits, and game. They were formerly largely engaged in the kumari cultivation, which was stopped in Fasli 1267.

MALE MANGOSTEEN, fruit of *Garcinia purpurea*.—*Roxb.*

MALEO, the *Megacephalon rubripes*, deposits its eggs in the loose sand of the sea-beach, in holes just above high-water mark; the female lays one large egg, which she covers over and returns to the forest; but many birds lay in the same hole. A dozen eggs are often found together. One egg fills an ordinary teacup, from 4 to 4½ inches long, and 2½ to 2¾ wide. They are very good to eat, and much sought after. The hen-bird takes no further care of the eggs, which the young bird breaks through about the 13th day, and runs at once to the forest. Each hen lays six or eight eggs in a season of two or three months.

MALER KOTIA, in lat. 30° 31' N., and long. 75° 59' E., is 30 miles south of Ludhiana. It is the chief town of a Native State in the Panjab, ruled by a Muhammadan nawab of Afghan descent. It is about 165 square miles in area, with a population 91,560 in 1876.

MALEVARA, a tribe of hillmen in the Nagar district of Mysore, said to be the aboriginal landholders. Malevelan is Malcalam, and means a tribe of mountaineers.

MALGUZAR. HIND., PERS. In India, the person responsible to Government for the payment of the revenues assessed on a village. Malguzari, revenues.

MALI. HIND. A gardener. The gardener race of India are a very large body, engaged in the finer branches of their profession. Many of the Koer of Northern India, and of the Kunbi of the Mahratta districts, with the Tota Kara or Tota Vadu of the Teling and Tamil countries, follow gardening. The Mali at the 1881 census were returned at 1,209,019. They are particularly numerous in the Dowlatabad province, extending into Ahmadnagpur and Poona, southwards to Sholapur, and northwards to Berar. They are cultivators, and sell vegetables, fruits, and flowers. In the Mahratta country the Mali is distinguished by the article he chiefly cultivates, as Jiri-Mali, grower of cummin and other aromatic seeds; Phul-Mali, grower of flowers, etc.

Mali are supposed by Mr. Campbell to be a considerable and widespread people. Between Ambala and Dehli are a good many Mali villages, and they are scattered about the N.W. Provinces as gardeners. They are common about Ajmir, and on the southern frontier of Hindustan. South of Jubbulpur, they are many and mixed with the Kurmi; all through the Mahratta country they are mixed with the Kunbi, and most of the potails are either Kunbi or Mali, and extending with the Kurmi far to the east, the Mali into Orissa, and the Kurmi into Manbhūm and other districts of Chutia Nagpur.—*Campbell.*

MALIA, a small Native State in the Kattyawar province of the Bombay Presidency. Its ruler is a Jarifa Rajput, with a yearly income of £6098; pays tribute of £136 jointly to the Gaekwar of Baroda and the nawab of Junagarh, and maintains a military force of 50 men.

MALIAH or **Maliya**, hill tracts in Ganjam and Vizagapatam districts, a hilly or mountain tract in the western portion of the Ganjam district, covering an area of 3500 square miles, and inhabited by the Khond and Savara races. The country is covered with dense forests of sal. The Khond

race are skilful and energetic, and well-to-do farmers. This hilly country nearly encompasses the more productive parts of Gumsur.

MALIDA. HIND., PERS. Soft food, used in India by toothless people. Also cloth of shawl-wool, fulled or rubbed so as to have the surface felted like cloth. It is a woollen fabric in use in Tibet.

MALIK, also called Dasht-i-Malik, also Choh Malik, is a flat desert plain on the road from Bokhara to Samarcand.—*Tr. C. As.*

MALIK. ARAB. A king. It is the title of every Afghan house or tribal subdivision. Malikah is a queen.

MALIK or **Mullak**, a race in Behar, who follow the Muhammadan religion of the Sunni sectarians.

MALIKANA. HIND. A sum paid in money or kind to the malik or owner of land by the kashtkar or pahi kasht cultivator, who is his tenant.

MALIK DIN, a khel or section of the Afridi. Their three sections are located close together in the central portion of the Tira Maidan.

MALIKI. In the first periods of Muhammadanism, four Arabian doctors made commentaries on the original text of the Koran, which were adopted by sects, now severally distinguished by the names of the commentators. But these explanations did not militate with much force against the first system, nor create any violent feuds among the different sectaries. The Muhammadans have now about 150 sects.

The names of the four great commentators were Malik as above; Hanbali, born at Baghdad A.H. 146, died 241; Hanifi, born at Kufa A.H. 80, died in prison at Baghdad A.H. 150; and Shafi; and their followers are designated Maliki, Hanbali, Hanifi, and Shafai.

MALIK-ibn-ANAS was born at Medina A.D. 713-714, and died there 795. The years A.H. 95 and 179 are also given.

MALIK RYHAN SAHIB. Oblations are offered at his shrine.

MALIK-SHAH-JALAL-ud-DIN. There are two eras in Persia, viz. that of Yezdejird III., king of Persia, dating from his accession, 16th June A.D. 632, and that of Malik-Shah-Jalal-ud-Din, king of Khorasan, which dates from A.D. 1079, the date of his reforming the Yezdejird era. It is still in use in Persia. The Persian tropical year consists of 365d. 4h. 49' 15" 0" 48", which is more correct than the Gregorian year.

MALIK TAOUS. Mr. Rich, describing the Kurd tribe who worship this idol, says (ii. p. 70) their pir or shaiikh reads prayers, every hearer at intervals crying out, Amen; and this is the whole of their worship. It is true that they pay adoration, or at least a sort of worship, to Malik Taous, the figure of a cock placed on a kind of candlestick, and produced once yearly for the purpose of worship.

MALIKZA, a section of the Razar division of the Yusufzai of the Peshawar district.

MALIMBI, a mountain in the Yelusavira range of hills, Coorg; 4488 feet above the sea. The summit is conspicuous from every part of Coorg.—*Imp. Gaz.*

MALIPUR or **Maliyapuram**, a group of hamlets in Malabar, Madras. Lat. 11° 3' 2" N., long. 75° 51' 21" E.—*Imp. Gaz.*

MALKA, a village in the Amazai country, on a plateau in the N.W. of the Mahaban mountain.

Wahabee sectarians from Hindustan settled in it, and in 1863 led to an expedition being sent against them. Major James, C.B., Commissioner of Peshawur, induced the Buner tribes to send a contingent of 2000 men with the Corps of Guides to burn down Malka. Thus the elder branch of the Yusufzai repeated the vengeance which they once before took on the fanatics, when in May 1831 their fathers rose against Syud Ahmad, the founder of the sect, who was then slain at Balakot on the Indus, drove his family to take refuge with the nawab of Tonk, who long sheltered them, and expelled his Ghazi followers.

MALKAGIRI or Malkagiri, in the Jeypore zamindari of the Vizagapatam district, Madras, a wild forest-clad tract, watered by the Taveri and Siteri, and sloping from the Tulasi Dangari Hills. Average elevation above the sea, about 1200 feet. There are some splendid sal and teak forests, and the whole tract is full of large game. — *Imp. Gaz.*

MALKANGANI. MAHR. *Celastrus montana*, C. paniculata. The oil is empyreumatic, obtained by the destructive distillation of the seeds of *Celastrus paniculata*, either alone or in combination with other ingredients. It was much used in the treatment of Beri-beri. — *Malcolmson's Essay.*

MALKAPUR, town in Buldana district, on the western frontier of Berar; situated in lat. 20° 5' N., and long. 76° 23' 20" E., on the Nalganga river; elevation above the sea, 900 feet. Population (1867), 7988.

MALKAVI, a Baluch tribe in the Dehra Ghazi Khan district.

MALIA, the Telingana Pariah, or Dher people, of Turanian origin, worshippers of Ammuus, scarcely of Brahmanical faith; properly Mala.

MALLA. According to the Mackenzie MSS., the patronymic of a northern tribe of mountain chiefs, who sprang from the aboriginal inhabitants, and who were non-Aryan. The Khond call themselves Mallaru. Both Khond and Mallaru mean highlanders.

MALLA, a king of Mallapuram, to whom Brahmans apply the legends relating to Mahabali and Mahabalipuram.

MALLAH. HIND. A sailor, a boatman, a maker of salt.

MALLAR. TAM. Agricultural labourers of the Pallar tribe; cultivators generally.

MALLESON, GEORGE BRUCE, Companion of the Star of India, an officer of the Bengal army, who rose to the rank of colonel. His literary labours have produced the Red Pamphlet on the Mutiny of the Bengal Army, 1857; *Essays and Lectures on Indian Historical Subjects*, 1866; *History of the French in India*, 1868; *Studies from Genoese History*, 1875; *Historical Sketch of the Native States of India*, 1875; *Final French Struggles in India and on the Indian Seas*, 1878; *History of the Indian Mutiny*, 3 vols., 1878-80; *History of Afghanistan*, 1878; *Herat, the Granary and Garden of Central Asia*, 1880; *The Life of Lord Clive*, 1882; *The Decisive Battles of India*, 1883; *The Battle-Fields of Germany*, 1884; *The Life of Field-Marshal London*, 1884.

MALLI, the ancient people of Multan.

MALLI. TAM., TEL. Properly Malai, a hill, as Raman-malli, Nalla-malli. Malavari, a pass through mountains; Malealam, the mountain

country in the west of India, the province of Malabar. — *Wils.*

MALILIAL, a people who are very industrious cultivators and gardeners, on the N.W. frontier of British India, above the Salt Range, and extending up into Peshawur. They now profess Muhammadanism. — *Campbell*, p. 108.

MALIMBI, a peak lying on the confines of Yelusavira and Yeldavanad; it is an exact cone.

MALJINATHA, a poet and author of commentaries of great repute on the Raghuvansa, Megha-duta, Sisupala-badha, and other great Sanskrit poems of the ancient Hindus. — *Dowson.*

MALLOTUS PHILIPPENSIS, *Mull.*, is the *Rottlera tinctoria*, *Rorb.* The capsules are covered by a mealy powder, consisting of minute ruby-like glands; and the tomentum on the under side of the leaves yields a dye called Kameela. This imparts a fine yellow colour to silks. The mealy powder is of a rich purplish-red colour, and has a melon-like heavy odour. It mixes with difficulty in water; but when boiled with alkaline salts, it gives out a very deep blood-red colour. Kameela is used as a vermifuge, its action depending on the minute stellate hairs in the powder. — *J. A. Murray.*

MALMALIA. HIND. Slightly brackish water.

MAL-NADU. KARN. Any hill country; the woody and hilly districts of Nagar in Mysore.

MAL OCCHIO. IT. Evil eye.

MALOJI BHONSIA, a Mahratta officer of rank in the army of Malik Ambar. He was of a respectable, though not a considerable family, and served with a few men, mounted on his own horses. He was especially dependent on the protection of Lukji Jadu Rao, who attained to a command of 10,000. Lukji Jadu Rao is supposed to have been of the Jadu race of Rajputs; and when Maloji rose in the service of the Ahmadnagpur State to a command of 5000 horse, and to the possession of a large jaghir, of which the chief place was Poona, his son Shah-ji was married to the daughter of Lukji Jadu Rao, and one of the fruits of the union was Sivaji, the founder of the Mahratta empire. — *Elphinstone*, pp. 544, 545.

MALONI BAPCAI, seed of a small plant found about Ajmir; tasteless, has a fine scent, is of a warm nature; a drachm is given in medicine; used externally with other medicines to cure the itch. — *Med. Top.* p. 127.

MALOPE, a genus of very beautiful annual plants of the Malvaceæ; the colour of flowers purple and violet; the plant grows to the height of seven or eight feet. *M. grandiflora*, a plant of India which yields fibres. — *Riddell.*

MAL PAHARIA. In the Ramgarh Hills of the Birbhum district, and at the foot of the Rajmahal Hills, there are villages and detached houses occupied by this tribe, but who appear to be altogether unconnected with the Rajmahal hillmen. They resemble the Kharris and Paharia met with in Manbhum, who belong to the Kolarian group. They dance like the Kol, and are fond of the amusement, and have one great festival in the year, in the month of January or Magh, corresponding with the great harvest joy of the Ho and Munda. — *Dalton's Bengal*, p. 274.

MALPIGHIACEÆ, the Barbadoes cherry tribe of plants; which consists of the genera *Malpighia*, *Byrsonima*, *Gaudichaudia*, *Hiptage*, *Hirsea*, *Stigmaphyllon*, *Heteropteris*, *Banisteria*, *Ancistro-*

cladus. *Malpighia coccifera* is a small stunted shrub, with leaves resembling the box; common in gardens. *M. heteranthera*, a handsome shrub, with leaves like the holly, is occasionally cultivated in European gardens. *M. puniceifolia*, the Barbadoes cherry, is an ornamental shrub introduced from the West Indies.—*Hort. Garden*, p. 25.

MALT.

Mout, Dut. | Maly, Ger.
Mal, Bledgerme, Fr. | Malto, It.

Malt is grain steeped in water, and made to germinate to a certain extent, after which the process is checked by the application of heat. This evolves the saccharine principle of the grain, which is the essence or malt. Rice, and almost every species of grain, has been used in malting; but in Europe, and especially in Great Britain, malt is almost entirely prepared from barley. It is the principal ingredient in the manufacture of beer, and is little used except in brewing and the distillation of spirits.

The consumption of malt liquor of local brew is steadily increasing in the army in India. During the ten years from 1872-73 to 1882-73, the cost of the malt liquor imported has decreased £98,000; while the expenditure for locally-brewed beer and porter has risen to Rs. 18,13,000, i.e. an increase of Rs. 15,74,000.

	In England.	In India.	Total.
1872-73, . .	Rs. 23,88,000	Rs. 2,39,000	Rs. 26,27,000
1879-80, . .	9,18,000	9,37,000	18,55,000
1882-83, . .	12,12,000	18,13,000	30,25,000

—*Faulkner; M'Culloch's Dict.*

MALTA, an island in the Mediterranean Sea, in lat. 35° 54' N., long. 14° 31' E., about 200 miles from the African coast, and 60 from Cape Pessaro in Sicily. The population, exclusive of the garrison and sailors of the fleet, comprising a mixture of Maltese, Franks, Greeks, Africans, and natives of the Levant, is about 150,000. Malta had been successively occupied by Phœnicians, Greeks, Carthaginians, and Romans. On the decline of the Roman power, it was seized by the Goths and Vandals, and then passed for a short period into the hands of the eastern emperors, who surrendered it to the Saracens. It then came into the possession of the Norman and German kings of Naples, with whom it remained until 1522, when it was granted by Charles v. to the knights of St. John of Jerusalem, who on several occasions valiantly defended it against the Turks, but surrendered it to Napoleon on the 12th of June 1798, at the first summons. The island was soon after blockaded by the British fleet under Lord Nelson, and, after suffering severe privations, the French finally relinquished the island to Sir Alexander Ball in August 1799. The climate is excellent in the winter.

MALTHA, or Sea Wax, is a solid, whitish, inflammable, vegetable substance, not unlike tallow, and may be impressed with the nail. It swells when heated, and on cooling assumes the consistence of white cerate. It affords a better light than petroleum, and emits a less disagreeable smell. It is found on the surface of the Baikal Lake in Siberia, at the foot of the Bakhtiari mountains in Persia, and other places.

MALVACEÆ, the mallow worts, a natural order of useful plants, comprising the East Indian

genera,—*abutilon*, *althæa*, *hibiscus*, *gossypium*, *malachra*, *malva*, *pavonia*, *senra*, *sida*, *thespesia*, and *urena*. The mallow worts are extremely numerous in species; these abound chiefly in tropical parts of the world in the form of trees and shrubs, though the mallow and marsh-mallow extend to temperate climates. They are remarkably destitute of all noxious properties, are mucilaginous, afford from the inner layers of the bark useful fibre, and many are employed in different countries as sources of commercial products,—the genera *malva*, *hibiscus*, *sida*, *althæa*, *lavatera*, and *urena* yielding tenacious fibres suited for cordage and other purposes, and the hairy covering of the seeds of the various species of *gossypium* forms the raw cotton so important to manufacturers. The seeds of *Abelmoschus moschatus* are warm and musky, and are employed in perfumery as a substitute for musk. Those of *A. esculentus* form the ochra, much used in hot countries as a mucilaginous ingredient in soups. A few species are acid, as *Hibiscus sabdariffa*. Tenacious fibres are procured from the inner bark of *H. elatus* and *H. tiliacea*, and several kinds of *sida*. *Urena lobata* and *U. sinuata*, the one called bun-ochra and the other kunga, and common in most parts of India, also abound in strong fibre, and a tolerable fine substitute for flax. The common mallow (*Malva sylvestris*, etc.) of Europe, and the marsh-mallow (*Althæa officinalis*), abound in fibre. *Malva crispa* is said by Cavannilles to have its fibre separated in Syria, and *Althæa cannabina* is sometimes so employed in the south of Europe; so *Lavatera arborea*, or tree mallow, will be found to abound in fibre. As emollients they are well known in medical practice, the marsh-mallow (*Althæa officinalis*) being one of the most useful among this kind of remedial substances. *Malva cuneifolia* is an annual growing in single plants here and there all over the Burmese country, but chiefly in the jungle. It affords a strong yellowish-white fibre, but it would be difficult to collect it in any quantity. *M. tiliaefolia*, a straggling annual widely dispersed in Burma during the rains. Its fibre resembles jute. Some of the best materials for paper-making in India are the barks of trees allied to the *hibiscus*, mulberry, malvaceous and cotton plants; the *baubiniæ*, *grewia*, and *guazuma* or bastard cedar. The principles of cleaning them are the same as for other fibres, viz. to get away the sap and juices of the plants as soon as possible, and if this is done within 20 or 30 hours after the plant is cut, a nearly pure white strong fibre can be obtained. Several trees contain tannin, which almost immediately begins to discolour the fibre of the bark, as soon as the branch is cut off from the parent tree. To remove this, a caustic ley made of fresh burnt lime and wood ashes should be prepared, and the bark, after having been stripped off, well beaten with sticks and washed with water, may be soaked for one night in this caustic ley; next morning the bark should be well beaten with sticks on a flat board, washed with clean water, and hung up in the shade to dry. In this way very strong and nearly white materials for paper can be prepared at a cheap rate. The beating or crushing allows the water to remove the sap, and the tannin is dissolved by the alkali before the fibres have time to get discoloured.—*M'Clelland; Riddell; Royle; Murray.*

MALVA MAURITIANA.

Kungi ki pat, . . . HIND. | Khatmi safed, . . . HIND.
It is cultivated in most parts of India.

MALVA PARVIFOLIA. Linn.

Sonchal of . . . RAVI. | Narr of . . . SUTLEJ.
Gogi, Sag, . . . | Panirak, Supra, TR.-IND.

In Kanawar, women clean their hair with an infusion of the root, and woollen cloth is washed by its aid. Bellew states that the root is used as resha khatmi? See *Althæa rosea*.

MALVA ROTUNDIFOLIA. Willd.

Seed. Khabazi. | Leaves. Kangi-ka-sag.
Flowers. Gul-khaira, Kangi.

Mucilaginous and emollient, used to form poultices, said to be inferior to *Althæa*, cultivated in India.—*Roxb.* ii. p. 184.

MALVA SYLVESTRIS. Linn.

Anjil, . . . ARAB. | Marsh-mallow, . . . ENG.
Khabazi, . . . | Khatmi, . . . PERS.
Common mallow, . . . ENG. The seed.—Towdri, . . .

Grows in the Panjab, Kashmir, and the W. Himalaya, in waste places. It is used largely by native physicians, in decoction with rose leaves, as a demulcent.—*O'Sh.*

MALWA, in Central India, is a region bounded on the north by Hindustan proper, east by Bundelkhand, south by the Dekhan (Dakshin), and west by Rajputana. It is an upland region, with many fertile valleys, included within the main rivers of the Ganges, the Sone, the Chambal, and the Nerbadda. In pre-historic times, the capital was at the ancient city of Ujjain, associated in Hindu legend with Vikramaditya, a great king, the date of whose accession (B.C. 57) has given the Samvat era to all India.

The ancient rajahs of Malwa are known from the writings of Abul Fazl, whose information is supposed to have been furnished from Jain authorities. It would appear that in an early age Mahahmah founded a fire temple, which was destroyed by Buddhists, but restored in B.C. 840 by Dhanji (Dhananjaya), a name of Arjun, about 786 before Vikramaditya. Between A.D. 866 and A.D. 1390, the country repeatedly changed hands from Hindu to Muhammadan sovereigns from the time that, in 866, Maldeva was conquered by Shaikh Shah, father of Ala-ud-Din, to 1390, when Dilawar Khan Ghori, viceroy of Malwa, assumed sovereignty. Malwa was added to the Delhi empire by Humayun, before his flight, but the Mahrattas have since been its dominant possessors.

At the close of the Pindari war (1817-1818), the districts in Central India and Malwa were left in a disorganized state, the Mahratta chiefs had parcelled out amongst themselves the possessions of the Rajput chiefs, and the smaller states were all subject to Sindia, Holkar, or the Puar, and sometimes to all three. Many of the smaller chiefs had been driven from their possessions, and had sought refuge in the jungles and mountains, where they robbed or levied tankhah or blackmail from the larger states.

Under an engagement mediated by Sir John Malcolm in 1819 between Purbut Singh, raja of Rutlam, and Dowlat Rao Sindia, the former agreed to pay an annual tribute of Salim Sahi rupees 84,000, while Sindia undertook never to send any troops into the country, or to interfere in any way in the internal administration

or succession. This tribute was assigned under the treaty of 1844 with Sindia, in part payment of the Gwalior Contingent. It is now paid to the British Government under the treaty of 1860. The raja of Rutlam is considered the principal Rajput leader in Western Malwa, and in consequence receives a voluntary allegiance and assistance if called for from the neighbouring Rajput chiefs. Raja Bulwunt Singh rendered good service during the mutinies, in recognition of which his successor, Bhyru Singh, received a dress of honour value Rs. 3000, and the thanks of Government. The military establishment of the raja of Rutlam consists of 500 sepoy. The revenue from all sources is estimated at Rs. 3,64,064, and the population at 94,839. The town of Rutlam is the principal opium mart in Western Malwa. The area of Rutlam is about 500 square miles. Sillana pays an annual tribute of Rs. 42,000, under the same conditions as Rutlam. The tribute is paid to the British Government under the treaty with Sindia of 12th December 1860, having been assigned in 1844 in part payment of the Gwalior Contingent. The revenue of Sillana is estimated at Rs. 2,49,000, the population at 88,978, and the area at about 103 square miles. Seetamhow, like Sillana, was once a part of Rutlam, but separated from it in A.D. 1660, on the death of Ram Singh, raja of Rutlam. A tribute of Rs. 60,000 from this state was guaranteed to Sindia by an agreement mediated by Sir John Malcolm in 1820. The total revenue of Seetamhow is about Rs. 1,50,000, and the population about 20,000. In consequence of repeated representations from the raja, Rs. 5000 of the annual tribute were remitted in 1860 by Sindia of his own free will, on the occasion of the raja's son waiting on him at Gwalior. The raja of Seetamhow remained faithful to the British Government during the mutiny of 1857, and received a dress of honour of Rs. 2000. The raja keeps up a military force of 40 horse and 200 foot.

Malwa and Gwalior are great centres of trade. In Malwa, the towns of Indore, Bhopal, Ujjain, Mundipore, Rutlam, Dhar, Jowra, Augur, Nemuch, Shoojaulpur, and Bhilsa are the principal marts. The opium exported from Malwa is about 17,000 chests.—*Thomas' Prinsep*, p. 259; *Orme; Malcolm's Central India*, i. p. 67; *Treaties, Engagements, and Sunnuds*, iv. p. 364.

MALWA and Be-Malwa, terms by which the Assamese designate the Garo race.

MALWAN, chief town of the Malwan subdivision of Ratnagiri district, Bombay, situated on an island off the coast of the Konkan, 70 miles south of Ratnagiri, in lat. 16° 3' 20" N., and long. 73° 30' 10" E.; pop. (1872), 13,955.—*Imp. Gaz.*

MAMANGONI, a very ancient festival, celebrated every twelve years at Tirnavay by the Vellaterra raja, and afterwards by the Zamorin of Calicut. It lasts twenty-eight days, and is attended by immense numbers.—*Bombay Lit. Soc. Tr.* i. p. 2.

MAMASENI, a nomade tribe dwelling in Luristan, who belong to the Lur family, as do likewise their neighbours the Khogilu and the Bakhtyar, who, like themselves, occupy the valleys of the great chain of Zagros which separates Irak Ajam from the provinces bordering on the Persian Gulf. All these tribes are the

descendants of the ancient Zend race, and the Mamaseni claim great antiquity. The country inhabited by the Mamaseni is called Shulistan, and has the direct dependencies of Fars to the east, Kazerun to the south, the Khogilu tribes and the hilly country descending towards the Persian Gulf to the west, and the chain of the Ardekan mountains to the north.—*De Bode's Tr.* p. 262.

MAMIRA, also written Mamiran, are roots of two different kinds in the Lahore bazar, the one from Kashmir, the other from China, called Khatai (Scythea). The latter is official all over the east, being much used by the hakims, who deem this root to be a specific in ophthalmia; but the genuine drug is seldom to be met with, as it has many substitutes, *Chelidonium majus* and *C. glaucum*, and Dr. Royle affirms *Ranunculus ficaria* or *ficaria* to be the plant from which the Kashmirian mamira is produced. Both sorts are used, in general externally, and in composition with other drugs are applied to the eyes as a dry collyrium. Mamira or Mamiran is the *Thalictrum foliolosum*.—*Honigberger*, p. 304.

MAMLATDAR, the head native revenue and police officer of a district of India.

MAMLUK, ordinarily written Mameluk, a purchased slave or captive taken in war. Ghuz, an emancipated Mamluk. A body of them in Egypt for a long time governed that country, although a ruler with the title of pasha was sent from Constantinople; they were at last exterminated by Muhammad Ali. At one time these were of two races, the Baherite and the Borgite, the latter of Circassian origin. In the times of Selim the First, the Mameluks were all of pure Circassian blood, but their ancestors had all been originally slaves.

MAMMALIA. The animal kingdom was arranged by Cuvier into four great subdivisions, —Vertebrata, Mollusca, Articulata, and Radiata. The Articulata has since been greatly subdivided, and the limits of two of the other subdivisions have been slightly altered. Vertebrate animals comprise four distinct classes, some of which, viz. fishes and reptiles, have blood nearly the temperature of the water or air in which they live, whilst the others, viz. the birds and mammals, are warm blooded. The mammals, which are here to be noticed, are warm-blooded, vertebrate, viviparous animals, and are distinguished from birds, as well as from the other vertebrate animals, by the possession of mammary glands, secreting milk for the nourishment of their young, and terminating outwardly in all (except in one or two) by teats. They are also distinguished by a covering of hair, except whales, but even the fœtus of whales has some tufts of hair. Most mammals have four limbs, from which they were formerly termed quadrupeds, but that term has been discontinued, as it is not applicable to the Cetacea. In cold climates, several animals pass the winter in a state of torpidity; and even in India certain bats and hedgehogs, and perhaps some rats, are more or less torpid during the cold season. Two species of bears found in the Himalaya retire to their caves during winter, and are rarely or never seen from the month of December till the end of March.

The animals of the East Indies in this branch of natural history have been described by several eminent men. In 1830-34 Dr. J. E. Gray published

Illustrations of Indian Zoology, chiefly selected from a collection made by Major-General Hardwicke; Colonel Sykes published a list of the animals observed by him in the Dekhan; Sir Walter Elliot in 1839 gave a Catalogue of the Mammalia of the Southern Mahratta Country; Mr. Hodgson published several lists of the Mammalia of Nepal; Colonel Tickell gave a detailed History of a few Animals; Major Hutton recorded some facts on the Mammals of Afghanistan; Mr. E. L. Layard, Dr. Kelaart (in his *Prodromus Floræ Zeylanicæ* 1852), Dr. Templeton, and Sir J. E. Tennent, almost exhausted the subject of the Fauna of Ceylon; Dr. Horsfield (1824, 1851) and Sir T. S. Raffles were amongst the first to describe the animals of the Eastern Archipelago; and Professor Bickmore and Mr. A. Russell Wallace have recently extended their predecessors' researches. Mr. Wallace in 1869 and 1872 wrote on the Malay Archipelago, and in 1876 and 1880 on the Geographical Distribution of Animals. In 1846-47 Dr. Cantor furnished a valuable list of the Mammalia of the Malay Peninsula; Dr. T. C. Jerdon in 1864 published the Mammals of India; and the labours of all these zoologists were reviewed by Mr. Blyth, curator of the Bengal Asiatic Society's Museum, in the scientific journals of the day. Colonel A. C. MacMaster, of the Madras army, in 1870 gave to the public his interesting Notes on Jerdon's Mammals, and since then, in 1874, Dr. Jerdon's book has been reprinted. In 1876, Captain J. H. Baldwin described the Large and Small Game of Bengal and the N.W. Provinces. In the same year (1876), W. T. Blanford, in the second volume of his book on Eastern Persia, described its Zoology and Geology; also those of Abyssinia, in 1879; and in the same year he gave the scientific results of the second Yarkand mission. In 1881 the Calcutta Museum published a Catalogue of its Mammalia; in 1884 Mr. R. A. Sterndale's Natural History of the Mammalia of India and Ceylon was printed; and it may be added that Sir Joseph Fayrer has written on the Tiger. The Journal of the Bengal Asiatic Society contains numerous contributions from other able zoologists.

Classification.—The animal kingdom has been arranged by learned naturalists in varied modes. Mr. A. R. Wallace, one of the ablest of the present day, in his *Geographical Distribution of Animals*, i. p. 85, gives the following classification as according with the views of Professors Huxley (1869) and Flower (1870):—

i. Monodelphia, 11 orders, viz. :—

Primates.	Ungulata.
Chiroptera.	Proboscidea.
Insectivora.	Hyrocidea.
Carnivora.	Rodentia.
Cetacea.	Edentata.
Sirenia.	

ii. Didelphia, 1 order, viz. Marsupialia.

iii. Ornithodelphia, 1 order, viz. Monotremata.

MAMMALIA.

ORDER I. PRIMATES.

Sub-Order. Anthropoidea.

Homidæ, man.	Cynopithecidæ, baboons and macaques.
Simiidæ, anthropoid apes.	Cebidæ, American monkeys.
Semnopithecidæ, Old World monkeys.	Hapalidæ, marmosets.

Sub-Order. Lemureidea.

Lemuridæ, lemurs.	Chiromyidæ, aye-ayes.
Tarsiidæ, tarsiers.	

ORDER II. CHIROPTERA.

Pteropidae, fruit-eating bats.	Rhinolophidae, horse-shoe bats.
Phyllostomidae, leaf-nosed bats.	Vespertilionidae, true bats.
	Noctilionidae, dog-headed,

ORDER III. INSECTIVORA.

Galeopithecidae, flying lemurs.	Potamogalidae, otter shrews.
Macroscelididae, elephant shrews.	Chrysochloridae, golden moles.
Tupaiaidae, squirrel shrews.	Talpidae, moles.
Erinaceidae, hedgehogs.	Soricidae, shrews.
Centetidae, tenrecs.	

ORDER IV. CARNIVORA.

Felidae, cats, lions, etc.	Mustelidae, weasels.
Cryptoproctidae, crypto-procta.	Procyonidae, racoons.
Viverridae, civets.	Aluridae, pandas.
Proteridae, aard wolf.	Ursidae, bears.
Hymenidae, hyenas.	Otariidae, eared seals.
Canidae, dogs, foxes, etc.	Trichechidae, walrus.
	Phocidae, seals.

ORDER V. CETACEA.

Sub-Order i. Mysticetæ.

Baleenidae.	Balaenopteridae.
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Sub-Order ii. Odontoceti.

Catodontidae.	Monodontidae.
Hyperodontidae.	Delphinidae.

ORDER VI. SIRENIA.

Manatidae.

ORDER VII. UNGULATA.

Sub-Order i. Perissodactyla or odd-toed Ungulates.	
Equidae, horses.	Rhinocerotidae, rhinoceros.
Tapiridae, tapirs.	

Sub-Order ii. Artiodactyla or even-toed Ungulates.

Hippopotamidae, hippopotamus.	Cervidae, deer.
Suidæ, swine.	Camelopardidae, giraffes.
Camelidae, camels.	Bovidae, cattle, sheep, antelopes, etc.
Tragulidae, chevrotains.	

ORDER VIII. PROBOSCIDEA.

Elephantidae, elephants.

ORDER IX. HYRACOIDEA.

Hyracidae, rock rabbits.

ORDER X. RODENTIA.

Muridae, rats.	Otodontidae, octodons.
Spalacidae, mole-rats.	Echymidae, spiny rats.
Dipodidae, jerboas.	Cercolabidae, tree porcupines.
Myosidae, dormice.	Hystriidae, porcupines.
Saccomyidae, pouched rats.	Caviidae, cavies.
Castoridae, beavers.	Lagomyidae, pikas.
Sciuridae, squirrels.	Leporidae, hares.
Haplodontidae, sewellels.	
Chinchillidae, chinchillas.	

ORDER XI. EDENTATA.

Bradypodidae, sloths.	Orycteropodidae, ant-bears.
Manidae, ant-eaters.	Myrmecophagidae, ant-eaters.
Dasypodidae, armadillos.	

ORDER XII. MARSUPIALIA.

Didelphidae, opossums.	Peramelidae, bandicoots.
Dasypodidae, native ants.	Macropodidae, kangaroos.
Myrmecobidae, native ant-eaters.	Phalangistidae, phalangiers.
	Phascolumyidae, wombats.

ORDER XIII. MONOTREMATA.

Ornithorhynchidae, duckbill.	Echidnidae, echidna.
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Dr. Jerdon arranged mammals into Placental, or those in which the foetus is nourished in the maternal uterus by means of a placenta; and Implacental or Marsupial, or those in which the young foetus is expelled at a very early period, and maintained, in a pouch, firmly attached to a nipple. The implacental or marsupial animals occur in the Australian region, and a few in America.

Mr. Blyth arranged the Placental mammals into—

I. Typodontia, animals with the typical forms of teeth developed, and include man, monkeys, bats, carnivorous animals, and shrews. The majority live on animal food.

II. Dipodontia, rarely more than two kinds of teeth, and include rats, squirrels, deer, sheep, cattle, the elephant, pig, horse, and the almost toothless ant-eater. They chiefly live on vegetable matter.

III. Isodontia, teeth, when present, are all of one kind, and comprise the whales and porpoises.

The details of the above classification are thus shown—

a. Placental mammals, foetus nourished in the uterus, through a placenta.

I. TYPDONTIA, teeth of all four kinds.

1st group, Primates, hair of one kind only.

ORDER, Quadrumana, with thumb on the feet.

ORDER, Cheiroptera, winged.

2d group, Secundates, hair of two kinds.

ORDER, Carnivora, molars trenchant, mixed with tubercular ones.

ORDER, Insectivora, molars studded with cusps.

II. DIPLODONTIA, teeth generally of two kinds only, abnormal.

ORDER, Rodentia, front teeth long and chisel-like.

ORDER, Pachydermata, teeth varied, skin thick, do not ruminate.

ORDER, Ruminantia, upper incisors generally absent, chew the cud.

ORDER, Sirenia, want posterior extremities.

ORDER, Edentata, incisors absent.

III. ISODONTIA, teeth, when present, of one kind, and often very numerous.

ORDER, Cetacea, posterior extremities wanting.

b. Implacental or Marsupial mammals.

I. UNGUICULATA, with nails.

Distribution.—Southern India, more particularly the richly-wooded Malabar coast, possesses more species peculiar to it than all Central and Northern India, except the Himalayan range. Of the animals found in the Himalayan range, several equally belong to the Indo-Chinese fauna, of which they appear to be the western extension, and a few others to Central Asia, whilst a moderate number appear to be peculiar to the Himalayan mountains.

The Langur monkeys (*Presbytis*) form a well-marked group in India, and are still further developed in the Indo-Chinese provinces and Malayana. Out of five continental species, one is spread through all the plains of Central and Northern India, one through the Himalayas, and there are three well-marked species in the extreme south of the Peninsula. *Macacus radiatus* of Southern India replaces *Inuus rhesus* of all Northern and Central India. A well-marked form of this group, *Inuus silenus*, is peculiar to the south-west corner of the Peninsula.

The lemurs are almost peculiar to Madagascar, but one species of the *Lemuridae* is very abundant in the extreme south, and a Malayan species extends sparingly through Burma into the N.E. corner of Bengal.

Two species of frugivorous bats are spread all over India, and one species occurs only in the south. Of insectivorous bats, seven species of *Rhinolophus* have been found in the Himalayas, but only two species in Southern India. The

Hippoideros section is represented equally in the north and south of India, and is more Malayan. The *Cælops* of Blyth has as yet been found only in the Bengal Sunderbans. The yellow-bellied *Nycticeji* occur pretty generally throughout India, *N. ornatus* occurring in the Himalayas.

A few European forms are found in the Himalayas. Moles occur in the Indo-Chinese region, and in the S.E. portion of the Himalayas. Shrews occur in all parts of India, but are most abundant in the Himalaya. One species of *Tupaia* occurs in Southern India, and another extends from the S.E. Himalayas to Burma.

Of the carnivora, two species of bears are Himalayan, and a third species extends throughout all the plains of India. *Ailurus fulgens*, one of the Ursidae, is peculiar to the Eastern Himalayas. Weasels occur only on the Himalayas; one marten is found both on the Neilgherries and Himalayas. One species of otter is found in the south of India; in Bengal are two species, and others occur in the Himalayas. Of fifteen feline mammals found in India, five are common to India and Africa, seven are found in India and the Indo-Chinese region, but three of these occur only in the S.E. Himalayas. One, the ounce of Central Asia, is Himalayan, and the smallest of the feline animals are peculiar to the plains of India, two of them in the extreme south of the Peninsula, and the other on the N.W.

Of the strictly Asiatic *Paradoxurus*, more Malayan than Indian, one species is common in most parts of India, and two occur on the Himalayas and adjoining Terai. The genus *Herpestes* is common to India and Africa; out of seven Indian species, five occur only in the south of the Peninsula, and of these four only in the extreme south. One small civet-cat is found throughout India, and is common in the Himalaya, a large species on the Himalaya replaced by a different race in the extreme south. *Arctonyx*, *Arctictis*, *Helictes*, *Urva*, and *Prionodon* are found in the S.E. Himalayas and in the Indo-Chinese region. The wolf, the jackal, and wild dog are found throughout India; two small desert foxes are found throughout the plains, and a fox of the European type occurs in the Himalayas. Squirrels are found throughout India up to the foot of the Himalayas, in the Indo-Chinese region, Assam, Burma, and Malayana. One species of flying squirrel is limited to the extreme south of the Peninsula, one in the south of the Peninsula, but several species in the Himalaya. Marmots only occur in the Himalayan region, to which they have been extended from Central Asia. Of the Muridae, *Golunda*, three species of *Leggada*, and the curious *Platanthomys* are peculiar to the south of India. *Arvicula* occurs only on the Himalayas, and *Rhizomys* in the Himalayas and the Indo-Chinese district.

The ran-hun or wild dog, *Cuon rutilans*, is a native of the Kashmir ranges, and although not to say common, is by no means rare; it is so stealthy in its habits that attempts to obtain specimens often prove abortive. They hunt in packs, and attack the largest deer. Even the Kashmir stag is said to be brought to bay and killed by packs of wild dogs. The wild dog seen by Dr. Hooker on the Khasya mountains, and known there by the names *kulsam* and *khas*, may be a different species, though Colonel Sykes

considers it identical with the *kolsam* of the Dekhan.

The domestic dog of the Jhelum district has a great resemblance to the pointer, and doubtless was introduced from India. Mr. Vigne makes a similar remark with reference to the dogs of the Rajawar district, south of the valley of Kashmir, where a formidable breed is also found, having the external appearances of the shepherd's dog, but much larger. A closely-allied form, not differing in any way from the Scotch collie, is common all over the cultivated regions of the Western Himalayas, and even westward to the sources of the Oxus, as observed by Lieutenant Wood. This uniformity is in favour of the view that the shepherd's dog forms almost a permanent race, which may have been one of the original varieties.

The Tibetan black bear, *Helarctos Tibetanus*, probably finds its way across from the Lower Himalaya. The black bear of the Southern Provinces (*U. labiatus*) is not found in the Panjab. *Helarctos Tibetanus* is common in the Panjab, and hunts among the ravines and around the villages at night. The isabella, or brown bear of the Himalaya, is an exceedingly stupid and unsuspicious animal in districts where it has not been disturbed. The contents of the gall-bladder are much prized as medicine by the hill people.

Malayana.—170 species of mammalia are known to inhabit Indo-Malaya. There are 24 of the quadrumana or monkey tribe, 10 of which occur in the Malay Peninsula, 11 of them in Sumatra, 9 in Java, and 13 in Borneo. The orang-utan are found only in Sumatra and Borneo; the siamang, next to them in size, in Malacca and Sumatra, and the long-nosed monkey only in Borneo. The gibbons or long-armed apes and monkeys, and the lemur-like animals, *Nycticebus*, *Tarsius*, and *Galeopithecus*, are found in all the islands. With the exception of the orang-utan, the siamang, the *Tarsius spectrum*, and the *Galeopithecus*, all the Malayan genera of quadrumana are represented in India by closely-allied species. In the Indo-Malay region are 33 carnivora, 5 of which—a tiger, leopard, civet, tiger-cat, and otter—are found in India and Malacca, and 20 in the Malayan region; 13 have representatives in India of closely-allied species.

The Malacca glutton, *Helictis orientalis*, has the *H. Nepalensis* in the Himalaya. There are 22 hoofed animals in Indo-Malaya, 7 of which are found in India and Burma. The *Bos sondaicus* is found in Burma, Siam, Java, and Borneo. There is a goat-like animal in Sumatra; the two-horned and the long-horned rhinoceros occur in Burma, Sumatra, and Java, and the elephant of India is found in Malacca, Sumatra, and Borneo. There are about 50 bats, of which under a fourth part occur in India; 34 rodents (squirrels, rats, etc., of which 6 or 8 are Indian; and 10 insectivora, 9 of which are peculiar to the Malay regions. The *Tupaia*, insect-eaters, closely resemble squirrels, are almost confined to the Malay islands, as also are *Ptilocercus* Lowii of Borneo and *Gymnurus Rafflesii*. In Timor there are 15 bats and 7 land mammals; amongst them the *Macacus cynomolgus*, the common monkey of all the Indo-Malay islands. *Paradoxurus fasciatus*, a civet-cat, is found over much of the Archipelago.

Felis megalotis, a tiger-cat, is peculiar to, and rare even in Timor. *Cervus Timoriensis*, *Sus*

Timoriana, *Sorex tenuis*, and *Cuscus orientalis* are all found in Timor and the Moluccas. *Paradoxurus fasciatus* is a civet-cat of Timor.

The mammalia of Celebes consist of 7 bats and 14 terrestrial species, amongst them the *Tarsius spectrum*, *Viverra zangalunga*, and *Rusa hippelapha*. *Cynopithecus nigrescens* in Batchian is of a jet-black colour, and the size of a spaniel.

The *Anoa depressicornis*, called Sapi-utan or the wild cow of the Malays of Celebes, approaches the ox-like antelopes of Africa, and has been classed as an ox or a buffalo and antelope. It is found only in the mountains, and never occupies places where there are deer.

The wild boar of Celebes is peculiar, but the Babirussa or pig deer there has long and slender legs, and the male has curved upper tusks turned back so as to resemble horns. It feeds on fallen fruits; it is found in the Celebes, in the Sulu Islands, and in Bouru. There are also 5 species of squirrels and 2 species of *Cuscus* or eastern opossums. *Cynopithecus nigrescens*, the black baboon monkey, is also of Celebes.

Out of the very small number of mammals which inhabit Celebes, it possesses three genera of singular and isolated forms, viz. the *Cynopithecus*, tailless ape, allied to the baboons; the *Anoa*, a straight-horned quadruped, quite unlike anything else in the Archipelago or in India; and Babirussa, an altogether abnormal wild pig. With a rather limited bird population, Celebes has an immense preponderance of species confined to it, and has also six remarkable genera (*Meropogon*, *Ceycopsis*, *Streptocitta*, *Enodes*, *Seiisirostrum*, and *Megacephalon*) entirely restricted to its narrow limits, as well as two others (*Prioiniturus* and *Basilornis*), which only range to a single island beyond it.

The Moluccas consist of three large islands, Gilolo, Ceram, and Bouru, with many small isles and islets, Batchian, Morty, Obi, Ke, Timor Laut, Amboyna, Ternate, Tidore, Kaiya, and Banda. There are 25 bats, but only 10 land mammals are known in the group; amongst them *Cynopithecus nigrescens*, *Viverra zangalunga*, *Rusa hippelaphus*, the Babirussa, *Sorex myosurus*, common to Sumatra, Borneo, and Java, and four marsupials, viz. the small flying opossum, *Belideus ariel*, a beautiful little animal resembling the flying squirrel in appearance, and a species of *Cuscus*, peculiar to the Austro-Malayan region. They are opossum-like animals, with a long prehensile tail, of which the terminal half is generally bare; they have small heads, large eyes, and a dense covering of woolly fur, often pure white, with irregular black spots or blotches, but sometimes ashy brown. They live in trees, and feed on the leaves, of which they devour large quantities; they are very tenacious of life.

The islands eastward from Java and Borneo form a part of a previous Australian or Pacific continent.

Australia has no apes, monkeys, cats, tigers, wolves, bears, hyænas, no deer or antelopes, sheep or oxen, no elephant, horse, squirrel, or rabbit. In lieu, it has kangaroos, opossums, wombats, and the duck-billed palypus. It has no woodpecker or pheasants, but has in lieu the mound-making brush turkeys, honey-suckers, cockatoos, the brush-tongued lorries, which are found nowhere else in the globe; and all these peculiarities are found in the islands which form the Austro-Malayan division of the Archipelago.

The Aru Islands, Mysol, Waigiou, and Jobie agree with New Guinea in their species of mammalia and birds, and they are all united to New Guinea by a narrow sea. The 100 fathom line around New Guinea marks the range of the paradise birds.

The Papuan Islands consist of New Guinea, 1400 miles long, and its adjacent islands. In them only 17 mammals as yet are known, viz. 2 bats, 1 *Sus Papuensis*, and the rest are marsupials, one of these a kangaroo of Mysol and the Aru Islands. An allied species occupies N. Guinea. Two species of the tree kangaroo with powerful claws. There are 4 species of *Cuscus*, and the small flying opossum; and there are 5 small marsupials, one of which is the size of a rat, and takes its place by entering houses and devouring provisions.

Uses.—The horse, the donkey, the camel, the dog, the elephant, and the otter have been trained to be servants to man. The first four have been entirely domesticated, and there are now many varieties of them. The elephant has rarely bred in captivity, but they are captured in a wild state in Ceylon, in the Peninsula of India, in the east of Bengal, and in Assam. They were not in use by the Moghuls, as Polo tells, until Kablai's capture of a number in the war with Mien or Ava. A few continued to be kept at the Chinese court at Timkowski's visit in 1821. The huge creatures are docile, and soon accommodate themselves to the requirements of man. They are usually employed in India, both in peace and war, in carrying heavy articles, but are trained also to carry individuals. There are many elephants in Africa, but the people there have not learned to ensnare them, and they are destroyed for the ivory of their teeth and tusks.

In the south of Asia, the wild ass or gor-khar of the desert, *Equus onager*, *Pallas*, also the *Equus hemippus*, *Is. Geoffroy*, and the kiang or dzightai of the Tibetan plains, *Equus hemionus*, *Pallas*, still roam untamed; and the *E. asinus* or *Asinus taniopus*, *Heuglin*, is in South Arabia and N.E. Africa. No attempt within historic times has been made to domesticate any of these, but many of the Kattyawar breed of horses have the shoulder-stripe of the wild and common ass distinctly across the withers.

Naturalists arrange the whales, porpoises, and dolphins under the Cetacea, a title taken from the Greek word *Kyros*, a whale. The fat and whalebone of the whales, and the spermaceti of one of the species, are largely used. The natives of the Arctic Atlantic shores, and those of the Northern Pacific Islands, eat the whale blubber, and the whalebone is applied to many useful purposes. Ships from Europe and America visit the Northern and Southern Seas to catch these great mammals. Many thousands of seals are yearly brought from the Greenland shores to furnish warm winter robes. Few of the ladies of Europe and America are aware of the fact that many ornaments for their hats which look like feathers are of split whalebone.

The porpoises are distinguished from all their allies by their great strength and ferocity, being the only cetaceans which habitually prey on warm-blooded animals; for, though fish form part of their food, they also attack and devour seals and various species of their own order, not only the

smaller porpoises and dolphins, but even full-sized whales, which last they combine in packs to hunt down and destroy, as wolves do the larger ruminants. The *Platanista Gangetica* of the rivers Ganges and Irawadi is quite blind. It feeds on small fish and crustacea; it ascends as high as there is water to swim in, but never passes out to sea.

The mammals which chew the cud are known to naturalists as the Ruminantia. They comprise most of the animals most useful to man,—camels, deer, cattle, and sheep. They are the most truly and exclusively vegetable feeders, and grass forms their chief food. They have four stomachs. The first of these, the paunch, receives the food as it is plucked, and passes it on to the second, where it receives a good maceration. From this it is returned to the mouth in pellets or boluses, to undergo a complete trituration by the molar teeth; is then passed into the third stomach, where it undergoes an additional preparation; and is lastly received into the true digestive stomach. This provision of nature enables them to crop a large quantity of food quickly, to be masticated at leisure, and thereby obviate the many interruptions they are liable to from beasts of prey and other alarms, as they are all excessively timid and wary. All of them are eaten as food by man; and all but the deer have been domesticated from the most ancient times. The camel, the sheep, and goats, by the Arabs and other races, have been offered in sacrifice. The races who follow Hinduism look with abhorrence on the slaughter of the cow. Their reverence for it almost amounts to worship, and they typify the earth as the ever-yielding cow. The camel, the ox, and the buffalo have all been trained for carriage, and they are utilized in agricultural operations. In Egypt, the camel and the ox, or the camel and the buffalo, may be seen yoked together at the plough. The cow is rarely thus employed. The hare and the rabbit, species of the rodentia or gnawing tribe, are eaten by most races, but as they do not chew the cud, they are abstained from by religionists who follow the Mosaic law. For the same reason, the hare, the rabbit, and the swine are avoided by Jews and Muhammadans, for though they divide the hoof they do not chew the cud. The swine and the rabbit have been domesticated. The Chinese and most Christian races eat the swine largely; and in India, to hunt the wild boar with the spear is a favourite sport.

Many of the races professing Hinduism, and all the Jains and Buddhists, ought by the tenets of their religion to abstain from all animal food. No Hindu would eat the cow. The Buddhists of Ceylon, Further India, Tibet, China, and Japan ought to be similarly abstinent; but though many of them will not kill to eat, few have scruples to use what another has killed, or creatures that have died of disease. The Burmese on the banks of the great rivers partake largely of fish, and the pig is reared for food by all Chinese. One or other of the non-Aryan races of India eat most of the quadrupeds and fishes, and many reptiles, amongst which may be mentioned the field, bush, and bamboo rats, the jerboa rat, a species of *Gerbillus*, several of the frogs and snakes.

Some of the frugivorous bats are occasionally used medicinally, as also the secretions of the

muskrat deer and civet, *Viverra zibetha*. Otters are trained in China to aid in fishing with the cast or bell net. The net is cast, and the otter, attached by a cord to the boat, is lowered to frighten fish out of holes in rocky or uneven bottoms into the net, which, as soon as lifted, is closed at the bottom by the leaden sinkers, and the fish are thus caught.

Jerboa rats, in thousands, issue from their holes in the dusk of the evening, and stand erect on their long hind legs. The credulous and superstitious greatly value as a charm the projecting process on the frontal bone of the jackal, and imagine it to be a horn; the claws and teeth of the tiger are also prized. The striped and spotted skins of the tiger, the lion, the leopard, and the panther are prepared as rugs for the drawing-rooms of the wealthy; the horns of the rhinoceros are valued by the Chinese carver; the ivory of the tusks and teeth of the elephant is used for many purposes in the arts; but the hides, skins, furs, hair, wool, horns, and bones of the horse, cattle, deer, sheep, and goats far outweigh in value to man the arts products of all other mammals.

Of the other mammals of the East Indies, many are even hurtful. The elephant, the lion, the tiger, the leopard, the hyæna, and the wolf, the jackal, the fox, the wild dog, and the bear cause many deaths of man and domestic animals. In British India, in the seven years 1875 to 1881, the yearly numbers of human beings so killed (144,260) ranged from 19,273 to 21,990; and the deaths of cattle (362,027) from 43,669 to 58,386. The Government of India pay annually ten or twelve thousand pounds as rewards for killing wild beasts. About 1600 elephants are destroyed annually, 7000 tigers and leopards, 2000 bears and hyænas, 5000 wolves, and 200,000 snakes.

The following were the numbers of human beings killed by

	1875.	1876.	1877.	1878.	1879.	1880.	1881.
Elephants, . .	61	52	46	33	38	46	58
Tigers, . . .	828	923	819	816	698	872	889
Leopards, . .	204	156	200	300	277	261	239
Bears, . . .	84	123	85	94	121	108	75
Wolves, . . .	1,061	887	564	845	492	347	256
Hyænas, . . .	68	49	124	33	28	11	8
Other wild beasts	2,015	1,143	1,180	1,323	1,270	1,195	1,232
Snakes, . . .	17,070	15,946	16,777	16,812	17,388	19,150	18,670

Tigers, leopards, and wolves are the most destructive.

One species of hare is found in the south of the Peninsula, another in Northern and Central India; the hispid hare in N.E. Bengal, and lagomys on the Himalayas. One elephant is common to all India; two species of rhinoceros occur in N.E. Bengal, one of them extending to the extreme south of the Malay Peninsula; one wild pig occurs throughout all India, varying slightly in appearance; and a peculiar dwarf species is found sparingly in the Terai adjoining the S.E. Himalayas. The wild ass of Western Asia and Persia is found in the north-western deserts. Two species of the true deer of the red deer type occur only within the Himalayas, beyond the outer range in Kashmir and Sikkim, and these two extend over a great part of Asia. The maral, a large stag, is found in all the higher regions of the Ala-tau and Mus-tau. He affords noble sport for the hunters, and his horns are highly valued by the Chinese. But it demands a fearless hunter

to follow him into his haunts among the precipices, glaciers, and snowy peaks of this region. In winter and spring he is found in the valleys, but as the weather becomes warmer he ascends, to escape the flies and other insects. They are seldom found in herds, though groups of 10 or 12 are sometimes seen standing on the brink of a precipice 1500 to 2000 feet in height, quite inaccessible to man. Two Cossacks hunting the maral, followed the game far up into the Ala-tau, and found a magnificent animal, whose horns were worth 120 roubles.

Four rusine deer are found throughout India, one of them, the *rucevus*, occurring only in Central and Northern India, and extending into Assam. The musk deer is only in the Himalayas, and the *memimna* or moose deer throughout India and in Malaya. The *nil-gai* and four-horned antelope, peculiar to India, are found throughout the Indian region. Gazelles occur both in India and Africa. The goat-like antelope, *Nemorhædus*, is found on the Himalayas, and is peculiar to Eastern Asia from Burma to Japan. One type of the true goats, the type *Hemitragus*, has a representative on the Himalayas, and another on the Neilgherries. The Siberian ibex extends to the Himalayas; and the markhor, quite of the type of the domestic goat, is found on the N.W. Himalayas and adjoining hilly districts. Of two species of wild sheep, one occurs in the Panjab Salt Ranges, and the other in the Himalayas.

The bison of sportsmen, the magnificent gaur, *Gavæus gaurus*, abounds in the forests of S. India, and extends into Central India, Burma, and the Malay Peninsula.

Two species of the manis, the scaly ant-eater, occur, one common throughout all India, and one extending from Darjiling into China.

The dugong occurs sparingly on the southern coasts of India; various species of *Delphinus*, one *Globiocephalus*, and one *Balenoptera*, and the fresh-water porpoise of the Ganges, Indus, and Irawadi, the *Platanista*, is a peculiar type.

Along the base of the Himalayas, in the dense jungles, an occasional tiger prowls; the leopard is not uncommon; while many of the game birds about Dugshai are there also plentiful. Among the lesser ranges bordering the plains, and to an elevation of 8000 or 9000 feet, barking-deer are common; and on the more secluded and craggy mountains the goral or chamois (*Nemorhædus goral*) may be occasionally seen sporting among the pine-clad precipices. This little antelope is gregarious, feeding in scattered herds, so that when the loud hissing call of alarm is uttered by one individual, the others, one by one, take it up; and the hunter, from a prominent position, may see from 10 to 20 gorals in different parts of the hill bounding across the precipices. The goral is rather higher than the barking-deer, and more compact and agile in appearance.

The species of mammalia in the Southern Mahratta country were described by Mr. (now Sir) Walter Elliot, of the Madras Civil Service, in the Madras Literary Society's Journal, July 1839. The district of India in which the animals were procured is a part of the high table-land towards the south of the Dekhan, commonly called the Southern Mahratta country, and constitutes the British zillah of Dharwar. It ought likewise,

geographically speaking, to include the small province of Sunda. The general boundaries are the rivers Kistna and Bhima on the north and north-east, the Tumbudra river on the south, the Nizam's territory on the east, and the Syhadri range of mountains on the west. The latter are generally called the ghats, a term which, however, properly applies only to the passes leading through them. The general face of this tract is much diversified, and affords a great variety of elevation and of geological structure, thereby materially affecting the distribution and the habitat of the different species of animals existing within its limits. The whole of the western portion is a thick forest, extending from the outskirts of the mountainous region of the ghats to their summits, and clothing the valleys that extend between their different ridges. It abounds with the teak and various other lofty forest trees, festooned by enormous perennial creepers. The bamboo forms a thick and luxuriant underwood in some places, while others are entirely open, and the banks of many clear and rapid streams flowing through it abound with the black pepper plant, the wild cinnamon, and other odoriferous shrubs. Portions of this forest are often left entirely untouched by the axe or knife, forming a thick impervious shade for the growth of the black pepper, cardamom, and Mari palm (*Caryota urens*). These are called *kans*, and are favourite resorts of wild animals. To the east of the regular forest lies a tract called the Mulnad or rain-country (though the natives of the plains often include the *jhari* or forest under the same denomination), in which the trees degenerate into large bushes, the bamboo almost entirely ceases, and cultivation, chiefly of rice, becomes much more frequent. The bushes consist chiefly of the *karunda*, the *pallas*, etc. It abounds in tanks and artificial reservoirs for purposes of irrigation. East of the Mulnad is a great extent of alluvial plain, producing fine crops of wheat, cotton, maize, *Holcus sorghum*, *Panicum Italicum*, *Cicer arietinum*. And on the Nizam's frontier are found a succession of low dry hills with tabular summits, often rising in abrupt scarped precipices, and intersecting and traversing the plains in various directions. They are clothed with low thorny jungle of babul and other acacia; and their bases, and the valleys between, composed of a light sandy soil, are cultivated with millet, vetches, etc., *Panicum spicatum*, *P. miliare*, *Phaseolus max*, *Ph. mungo*, etc. The first or mountainous division consists chiefly of micaceous clay and other schists, which to the northward are succeeded by basaltic or trap formation. The Mulnad is composed of undulating clayslate hills, which become covered with basalt to the north. This trap formation extends in a slanting direction from S.W. to N.E., nearly coinciding with a line drawn from Sadasheghur on the coast to Bijapur and Sholapur, and, what is remarkable, is almost coincident with that marking the separation of the two great tribes of the population using totally distinct languages, the Mahrattas and Canarese. The hills to the N.E. and E. are all of primitive sandstone, sometimes resting on schists, sometimes immediately on granite, which latter is the rock nearest the surface in the central and eastern plains. But a well-defined range of hills to the S.W., called the Kupputgud, is entirely composed of micaceous

and clay slates, resting on granite. The hills more to the N. and N.W. are basaltic. The extensive plains lying between these different lines of hills and eminences are composed of the rich black mould called regur or cotton ground, resulting from decomposed basaltic rocks. To the N.E. a considerable tract of limestone is found, resting on the sandstone, about Bagalcote, Badami, Hungund, Mudibihal, etc.

The strange-looking goat-antelope (*Nemorhædus bubalina*), known by the name ramoo in Kashmir, and serou in other districts of the Western Himalaya, is perhaps the rarest of the wild ruminants. Occasionally the sportsman comes across an individual in the depths of the alpine forests, but the animal is very solitary in its habits, and seldom more than a couple are seen together. Both in figure and movements the serou is perhaps one of the most ungainly of its tribe, and so stupid is it that when come on unawares it will stand and gaze at the intruder; even the report of a rifle seldom scares it. The serou has the legs of a goat, the horns of an antelope; its general appearance is bovine, whilst the long stiff bristles on its back, and general shape of the head, are decidedly porcine,—a sort of nondescript beast, which European sportsmen often call a very extraordinary looking animal, and so it is. The serou is said to fight desperately; it has been known when wounded or brought to bay to have kept off a pack of wild dogs, and killed several by its sharp-pointed horns. A few are met with on the Kashmir ranges, and in favourable situations eastward to Nepal.

The houriar (*Caprovius Vignei*) extends along the eastern spurs of the Salt Mountains, but becomes less common as we proceed eastward, and is seldom met with on the ranges beyond the town of Jhelum, or southwards of the Beas river. It is confined to the north and western portions of the Panjab, including the Suliman chain, where it is known by the name of kuch. It is also a denizen of the mountains around Peshawur, including the Khaihar pass, Hindu Koh, and Kafiristan. The shapoo or shalmar of Ladakh, if not identical, is certainly very closely allied; its differences are slight, and such as might result in a great measure from the marked diversity of climate, food, etc., of the two regions. This species is no doubt the sha of Tibet described by Vigne, and possibly the wild sheep of Western Afghanistan, Persia, the Caucasus, Armenian and Corsican mountains, is the same species altered mayhap by climate and other external agencies. The eastern limits of the shapoo have not been fixed with certainty; but so far as inquiries have extended, it would seem that, commencing at Ladakh, it proceeds westward towards the Indus, into the regions where the houriar is found; and probably when these regions are explored we shall find out the relation between what has been supposed distinct, but which Dr. Adams was inclined to consider one and the same animal.

The ibex (*Capra Himalayana*) frequents many of the lofty ranges of the western chains, and is known to the natives by the names skeen and kail, which they apply indiscriminately in the districts of Aserung, Spiti, Kanawar, the Northern Kashmir mountains, Ladakh, Chinese Tartary, and the Altai. There appears to be a variety in Ladakh with shorter horns than the Himalayan,

and specimens of the Siberian ibex possess the same peculiarity. The leopards, panthers, wild dog, and bearded vulture are the common enemies of the ibex; the vulture preys on the kids only. The ibex is found on certain ranges in Ladakh, especially on the chains northward.

The Caucasian ibex (*Capra Caucasica*) frequents the mountains of Baluchistan, and it is likewise a native of the Murree and other ranges on the north-western frontier of Sind. The Caucasus, Asia Minor, Syria, and Arabia are also countries which it inhabits. It does not appear to travel any great distance eastward, and is probably replaced on the higher ranges of Afghanistan and Persia by its noble congener the Himalayan ibex. The Caucasian ibex has the hair short and dark-brown, with a black line down the back. The beard is also black. Like the European and Himalayan animals, the horns are also bent backwards, but they differ in being more slender and tapering. In the latter, moreover, the horns are three-sided, and the anterior and posterior surfaces sharp, and generally smooth, with the exception of a few irregular tuberosities on the frontal aspect. Like the other species, it frequents dangerous and inaccessible places, such as bleak and barren mountain tops.

Some quadrupeds are undoubtedly diminishing in British India, and markedly the elephant and the lion. The lion, until the middle of the 19th century of not unfrequent occurrence in the region between Sind, Kattyawar, and the Central Provinces, is now (1884) almost unheard of. We have the evidence of Jahangir and the Rev. Edward Terry that in their days the province of Malwa abounded with lions. Jahangir records that he had killed several, and Mr. Terry mentions his having been frequently terrified by them in his travels through the vast woods and wildernesses of the country. It is known to the people as the Untia-Bag, literally camel-coloured tiger. They do little injury. Tigers, however, have always been destructive to the domestic cattle, and as the opening up of British India by roads and railways has led to the destruction of the herds of deer, the tiger has been more and more making man his prey. They are supposed to breed largely in Bustar. In the extreme south of the peninsula of Malacca they are very numerous. The uncultivated forest tribes of India revere the tiger, style him brother, and the Burmese eat the tiger in the belief that they may improve their courage. They buy its flesh at a shilling a pound.

A mere mention of the hyæna, the jackal, the wild dog, the porcupine, rhinoceros, and tapir will suffice. They cause little injury to man. From time to time, frequently following famine years, swarms of rats invade the already wasted lands, and their original habitats remain untraced. One of the leopards, the *Felis jubata*, has been trained to hunt the deer. The mungoose, species of the genus *Herpestes*, readily attacks and kills the venomous cobra, and thus aids to protect man.

The wolves, wild dogs, and jackals hunt in packs, and evince much intelligence and cunning. Notices of them will be found under their respective headings.

The following details exhibit the families, genera, and principal species of mammals in the south and east of Asia, with some of Africa:—

ORDER, PRIMATES.

Fam. Simiidae, Monkeys, the Quadrumana, the Haplorhinae, Van Horren, and Catarrhinae, Geoffroy.

Sub-Fam. Simiinae, Apes.

Troglodytes niger, chimpanzee, Africa.

T. gorilla, gorilla, Africa.

Simia satyrus, orang-utan of Borneo.

S. morio, orang-utan of Sumatra.

Sub-Fam. Hylobatinae, Gibbons of Indo-Chinese countries and Malaya.

Hylobates hoolook, hoolook of Assam, Cachar, Khasya, and Sylhet.

H. lar, gibbon of Tenasserim.

H. agilis, gibbon of Malay Peninsula.

There are several others in the Malay islands.

Monkeys.

Prosimys illiger, *syn. Semnopithecus*, *F. Cuvier*, the hanuman or langur.

P. entellus, *Jerd.*, Bengal langur.

Simia, *Dufren.* | *P. anshises*, *Ell.*

Musa, CAN. | *Wanur*, *Makur*, . MAHR.

Hanuman, HIND.

Common in Bengal and Central India.

P. schistaceus, *Hodg.*, *Horsf.*, Himalaya langur.

Kubur, BHOT. | *Kamba subu*, . . LEPOH.

Occurs throughout the Himalayas.

P. priamus, *Ell.*, *Blyth*, *Horsf.*, Gandangi, TEL., the Madras langur, inhabits the eastern side of the Peninsula and the north of Ceylon.

P. Johnii, *Jerdon*.

Simia Johnii, *Fisher*. | *Sem. Johnii*, *var. Martin*.

Semnopithecus Dussumierii, *Schinz*. | *Sem. cucullatus*, *Is. Geoff.*

Sem. hypoleucos, *Bl. Horsf.*

The Malabar langur, of Travancore, Cochin, Malabar, and South Canara.

P. jubatus, *Jerdon* (*Semnopithecus Johnii*, *Wagner*, *Blyth*, *Martin*), the Neilgherry langur, of Neilgherries, Annamalai, Pulney, and Wynad, not below 2500 and 3000 feet.

P. pileatus, *Blyth*, Sylhet, Cachar, Chittagong.

P. barbei, *Blyth*, interior of Tipperah Hills.

P. obscurus, *Reid*, Mergui.

P. Phayrei, *Blyth*, Arakan.

P. albo-cinereus, Malay Peninsula.

P. cephalopterus, *Blyth*, Ceylon.

P. ursinus, *Blyth*, Ceylon.

Several other species occur in the Malay islands.

Sub-Fam. Papioninae, the true Baboons of Africa and monkey-like Baboons of India. Generic name *Bandar*.

Inuus silenus, *Jerdon*, lion-monkey.

Simia leonina, *Linn.* | *Silenus veter*, *Gray*, *Bly.*

Nil-bandar, BENG. | *Nella-manthi*, . MALEAL.

Siah-bandar, HIND.

W. Ghats, Cochin, Travancore.

I. rhesus, *Jerdon*, Bengal monkey.

I. erythraeus, *Schreb.* | *Pithex oinops*, *Hodg.*, *Horsf.*

Morkot, BENG. | *Marout-banur*, . . LEPOH.

Piyu, BHOT. | *Banur*, *Suhu*, . . "

Inhabits nearly all India.

I. pelops, *Jerdon*, hill monkey (*Macacus Assamensis*, *M' Clelland*, *Horsf.*, *Blyth*), high up on the Mussoori Hills.

I. Assamensis, *Jerdon*? is *Macacus Sikkimensis*, *Hodg.*?

I. nemestrinus, *Jerdon*, Tenasserim, Malaya.

I. leoninus, *Blyth*, Arakan.

I. arotoides, *Is. Geoffroy*? Arakan.

Macacus radiatus, *Jerdon*, Madras monkey.

Simia sinica, *Linn.*, *Ell.*, *Blyth*, *Horsf.*

Munga, CAN. | *Wanur*, MAHR. of SYKES.

Makadu, MAHR. | *Vella munthi*, . . TAM.

Kerda, MAHR. of GHATS. | *Koti*, TEL.

All over Southern India.

M. pileatus, *Shaw*, Ceylon.

M. carbonarius, *F. Cuvier*, Burma.

M. cynomolgus, *Linn.*, Burma.

Fam. Lemuridae, the Lemurs, mostly of Madagascar, one genus of Africa, and two or three from India and Malaya. *Cheiromys*, *indris*, *lemur*, and *hicanotus* are Madagascar forms.

Nycticebus tardigradus, *Jerdon*.

Stenops Javanicus, *Auct.* | *N. Bengalensis*, *G. H.*, *Bl.*

Lajja banar, BENG. | *Slow-paced lemur*, . . ENG.

Lajjawoti banar, " | *Sharmindah billi*, . . HIND.

Found in Bengal, Rungpur, Dacca.

N. Javanicus, *Blyth*? of Java.

Loris gracilis, *Jerdon*, Lemur Ceylonicus, *Fischer*, *Bly.*

The slender lemur, ENG. | *Tevangar*, TAM.

Sloth of MADRAS. | *Dewantali pilli*, TEL.

Found in Ceylon and Southern India.

Tarsium, a genus of Java.

Fam. Galeopithecidae, Flying Lemurs.

Galeopithecus, *sp.*, natives of Malaya, form a link to the frugivorous bats. They have pectoral mammae. They have a membrane connecting their limbs, but have not the power of sustaining flight. They are nocturnal and insectivorous, and sleep with their heads down.

SUB-ORDER, CHEIROPTERA, Bats.

Fam. Pteropodidae, Frugivorous Bats of Malaya, Ceylon, India, Burma, Malacca, Java.

Pteropus Edwardsi, *Jerd.*, large fox bat, flying fox.

Pt. medius, *Temm.* | *Pt. Assamensis*, *M' Clelland*,

Pt. leucocephalus, *Hodg.* | *Blyth*.

Badul, BENG. | *War-baggu*, MAHR.

Toggu bawali, CAN. | *Sikat yelli*, TEL.

Gadal, *Bar-bagal*, HIND. | *Siku rayi*, "

Found in Ceylon, India, and Burma.

Pt. Leschenaultii, *Jerdon*.

Pt. seminudus, *Kelaart*. | *Fulvous fox bat*, ENG.

Madras, Carnatic, and Trichinopoly.

Pt. edulis, Java and Malacca.

Pt. Dussumierii, *Is. Geoff.*, continent of India?

Cynopterus marginatus, *Jerdon*, small fox bat.

C. affinis, *Gray*. | *Pt. tittscheilus*, *Temm.*,

Pteropus pyrrivorous, *H.* | *Ell.*, *Bly.*, *Horsf.*

Cham gadal, BENG. | *Gadal*, HIND.

Throughout all India and Ceylon.

Macroglossus minimus (*Jerdon*, the *Pteropus minimus*, *Auctorum*), Tenasserim and Malaya.

Fam. Vampyridae.

Sub-Fam. Megadermatinae, Vampire Bats.

Megaderma lyra, *Jerdon*.

M. schistacea, *Hodg.*, | *M. Carnatica*, *Ell.*

Bly., *Horsf.*

Large-eared vampire bat, over all India.

M. spectrum, *Jerdon*, Kashmir vampire bat.

M. Horsfieldii, *Blyth*, Tenasserim.

M. spasma, *Linn.*, Ceylon, Malaya.

Sub-Fam. Rhinolophinae, Leafy-nosed Bats.

Rhinolophus perniger, *Jerdon*, *Hodg.*, *Blyth* (*R. luctus*, *Temm.*), large leaf bat of Nepal? Malabar? Java?

Darjiling.

R. mitratus, *Blyth*, mitred leaf bat, Chyabassa, Mussoori, Central India.

R. tragatus, *Hodg.*, *Blyth*, dark-brown leaf bat of Nepal, Mussoori.

R. Pearsoni, *Horsf.*, *Blyth*, Darjiling, Mussoori.

R. affinis, *Horsf.*, *Blyth*.

R. rubidus, *Kelaart*. | *R. cinereus*, *Kelaart*.

Malabar? Ceylon, Burma, Malaya.

R. rouxi, *Temm.*, *Blyth* (*R. lepidus*, *Bly.*), rufous leaf bat of Malabar, Calcutta, Colong, Mussoori.

R. macrotis, *Hodg.*, *Bly.*, large-eared leaf bat, Himalaya, Nepal, Mussoori.

R. subbadius, *Hodg.*, *Bly.*, bay leaf bat, Nepal, Himalaya.

R. brevitaris, *Bly.*, Darjiling.

Other species of *Rhinolophus* occur in the Malayan islands, China, and Japan.

Hipposideros armiger, *Bn. Hn.* (*H. nobilis*, *var. Blyth*), large horse-shoe bat, Nepal, Mussoori, Darjiling.

H. lankadeva, *Kel.*, Ceylon.

H. nobilis, *Cantor*, Burma, Ceylon, and Malay Peninsula.

H. speoris, *Bl.*, *Ell.*, *Jerdon*.

H. apiculatus, *Gray*. | *H. Dukhunensis*, *Sykes*.

H. penicillatus, *Gray*.

India generally. Ceylon, Archipelago.

- H. cinerascens*, *Bly.*, ash horse-shoe bat, Panjab, Salt Range.
H. murinus, *Jerdon* (*Rhinolophus fulgens*, *Ell.*, *Blyth*), little horse-shoe bat, S. India, Ceylon, Nicobars, Burma, Malaya.
H. larvatus, *Horsf.*, Burma, Malaya, Sylhet.
H. insignis, *nobilis*, diadema, and *galeritus*, *Cantor*, are from the Malay Peninsula.
Collops Frithii, *Bly.*, tailless bat, Sunderbans.
Rhinopoma Hardwickii, *Gray*, *Blyth*, long-tailed leaf bat, all India, Burma, Malaya.
Nycteris Javanica, *Geoff.*, Java, Malacca.

Fam. Noctilionidæ.

Sub-Fam. Taphozoinæ.

- Taphozous longimanus*, *Hard.*, *Blyth*.
T. brevimanus, *Blyth*. | *T. fulvidus*, *Blyth*.
T. Cantori, *Blyth*. | Long-armed bat.
 All India.
T. melanopogon, *Temm.*, *Horsf.*, black-bearded bat of Canara and Malaya.
T. saccolaimus, *Temm.*, *Blyth*.
T. crassus, *Blyth*. | *T. pulcher*, *Elliot*.
 White-bellied bat of Madras and Malaya.
T. bicolor, *Temm.*, E. Indies?
Emballonura, *sp.*, from Java.

Sub-Fam. Noctilioninæ.

- Nyctinomus plicatus*, *Jerdon*.
Vespertilio plicatus, | *N. dilatatus*, *Horsf.*
Buch., *Bly.* | *N. tenuis*, *Horsf.*
N. Bengalensis, *Geoff.*
 The wrinkled-lip bat of Madras, Calcutta.
Ocheiromeles torquatus, of Java.

Fam. Vespertilionidæ.

Sub-Fam. Scotophilinæ.

- Scotophilus serotinus*, *Jerdon*, silky bat.
Vespertilio noctula, *Geoff.* | *V. serotinus*, *Schr.*
 Europe, Himalaya, Tyne Range beyond Mussoori.
S. Leisleri, *Jerdon* (*Vespertilio dasycarpus*, *Leisleri*, *Blyth*), hairy-armed bat, Tyne Range, Himalaya.
S. pachyomus, *Jerdon*, the thick muzzled bat of India?
S. Coromandelianus, *Jerd.* (*Kerivoula Sykesii*, *Gray*, *Ell.*), Coromandel bat of all India.
S. lobatus, *Jerd.* (*Vespertilio abramus*, *Temm.*), the lobe-eared bat of India.
S. fuliginosus, *Jerd.* (*Nycticejus atratus*, *Blyth*), the smoky bat of Nepal.
S. fulvidus, *Ell.*, Tenasserim.
S. pumilioides, China.
S. Hodgsonii, Calcutta.
S. falcatus, India.
S. fulvus, Madras, Java.
Noctulinia noctula, *Gray*, *Vespertilio lasiopterus*, *Sch.*,
V. altivolans, *White*, *V. labiata*, *Hodgs.*, *Blyth*.
 The noctule bat of England, Nepal. Flies high.
Nycticejus Heathii, *Horsf.*, *Bl.*, large yellow bat, Southern and Central India.
N. luteus, *Blyth* (*N. flaveolus*, *Horsf.*), Bengal yellow bat, all India, Assam, Burma.
N. Tomminckii, *Jerd.*
Vespertilio belanger, *Geoff.* | *V. noctulinus*, *Is. Geoff.*
 The common yellow bat of India, Burma, Malaya.
Nycticejus castaneus, *Gr.*, *Bly.*, chestnut bat of Bengal, Burma, Malaya.
N. atratus, *Blyth* (*Scotophilus fuliginosus*, *Bly.*), sombre bat of Darjiling.
N. canus, *Blyth* (*Scotophilus Maderas-patanus*, *Gray*), hoary bat of all India.
N. ornatus, *Blyth*, harlequin bat, Darjiling.
N. nivicolus, *Hod.*, *Horsf.*, alpine bat, near the snows of Sikkim.

Sub-Fam. Vespertilioninæ.

- Lasiurus Pearsoni*, *Horsf.*, *Bl.* (*Noctulinia lasiura*, *Hodgson*), the hairy-winged bat of Darjiling.
Murina sullus, *Jerd.* | *L. Pearsoni*, *Bl.*
 The pig bat of Darjiling, Malaya.
Murina Formosa, *Jerd.*, the beautiful bat.
Vespertilio Formosa, *H.* | *Nycticejus Tickelli*, *Blyth*.
Kerivoula Formosa, *Gr.* | *N. isabellinus*, *Horsf.*
 Central India, Nepal, Sikkim, Darjiling.

- Kerivoula picta*, *Jerd.* (*Vespertilio kerivoula*, *Boddaert*), painted bat of all India, Burma, Malaya.
K. pallida, *Blyth*, the pale-painted bat of Chybasa.
K. papillosa, *Jerd.*, the papillose bat of Ceylon, Calcutta, Java, Sumatra.
K. tenuis? *Tomes* (*Vespertilio tentis*), Java, Sumatra.
K. Hardwickii, *Tomes* (*Vespertilio Hardwickii*), Java, Sumatra.
Vespertilio caliginosus, *Tomes*, mustachoeed bat of India.
V. Siligorensis, *Hodg.*, *Horsf.*, Terai bat, Siligori in the Sikkim Terai.
V. Darjilingensis, *Hodg.*, Darjiling bat, like *V. mystacinus* of Europe.
V. Blythii, *Tomes*, Nasseerabad.
V. adversus, *Blyth*, *Horsf.*, Malayan bat of Ceylon, Calcutta, Burma.
V. Horsfieldii, *Temm.* (*V. tralatitius*, *Horsf.*), Malayan Peninsula and Java.
Myotis murinus, *Jerd.* (*Vespertilio murinus*, *Geoff.*), mouse-like bat of Europe, Mussoori.
M. Theobaldi, *Blyth* (*M. pallidiventrif*, *Hodg.*, *Blyth*), mouse bat of Kashmir.
M. parvipes, *Blyth* (*M. pipistrellus*, *Bly.*), small-footed mouse bat of Mussoori.
M. lepidus, *Blyth*, Kandahar.
M. Berdmorei, *Blyth*, Tenasserim.
Plecotus auritus, *Jerd.*

- P. homochrous*, *Hodg.* | *P. Darjilingensis*, *Hodg.*
 Long-eared bat of Darjiling.

- P. Timorensis*, *Geoff.*, Timor.
Barbastellus communis, *Gr.*, *Bl.*
Vespertilio barbastellus, *Schr.* | *B. Daubentonii*, *Bell.*
 Barbastelle bat of Himalaya, Mussoori, Nepal.
B. leucomelus, *Jerd.* (*Vespertilio leucomelus*, *Ruppell*), Red Sea.
B. macrotis, *Jerd.* (*V. macrotis*, *Temm.*), Sumatra.
Nyctophilus Geoffroyi, *Bl.*, *Leach*, the large-eared leaf bat of Europe, Australia, Mussoori.

ORDER, INSECTIVORA, Insectivorous Mammals.

Fam. Talpidæ, Moles.

- Talpa micrura*, *Hodg.*, *Blyth* (*T. cryptura*, *Blyth*).
Biyu kantayem, . BHOT. | *Pariam*, . . . LEPCB.
 Nepal, Sikkim.
T. macrura, *Hodg.*, long-tailed mole, Sikkim.
T. leucura, *Blyth*, Sylhet, Tenasserim.
T. mogura, *Temm.*, Japan.
Urotrichus talpoides, Japan.

Fam. Sorexidæ, Shrews.

- Sorex caeruleascens*, *Shaw*, *Blyth*, musk rat, musk shrew.
S. Indicus. | *S. Sonnerati*, *Geoff.*
S. giganteus. | *S. mysourus*, *Gray*.
Sondeli, . . . CAN. | *Chachundi*, . . . HIND.
 All India.
S. murinus, *Lin.*, *Blyth*.
S. mysourus, *Pallas*. | *S. viridescens*, *Blyth*.
S. Swinhoei, *Blyth*. | Mouse-coloured shrew.
S. India, Bengal, Burma, Malaya, China.
S. nemorivagus, *Hodgson* (*S. murinus*, *Horsf.*), Nepal wood shrew of Nepal and Sikkim.
S. Griffithii, *Horsf.*, Khassya Hills.
S. serpentarius, *Is. Geoff.* (*S. Kandianus*, *Kelaart*), rufescent shrew of Ceylon, S. India, Burma, Tenasserim.
S. heterodon, *Blyth*, Khassya Hills.
S. saturator, *Hodg.*, Darjiling.
S. Tytleri, *Blyth*, Dehra Doon.
S. soccatus, *Bly.*, *Hodgson*, hairy-footed shrew of Nepal, Sikkim, Mussoori.
S. niger, *Ell.*, *Horsf.*, Neigherry wood shrew.
S. leucops, *Hodgs.*, long-tailed shrew, Nepal.
S. Hodgsonii, *Blyth*, Nepal pigmy shrew.
S. Perroteti, *Duvernoy*, pigmy shrew of Mysore, Neigherry, Dekkan.
S. micronyx, *Blyth*, small-clawed pigmy shrew of Western Himalaya.
S. melanodon, *Blyth*, black-toothed pigmy shrew of Calcutta.
Hodgson described *Sorex Sikkimensis*, *homourus*, *oliguris*, *macrurus*, *holo-sericeus*, and *tenuicauda* of Darjiling.
Sorex ferrugineus, *montanus*, *Kelaarti*, *purpurascens*, *Temp.*, and *Horsfieldii*, *Tomes*, of Ceylon.

MAMMALIA.

S. fuliginosus, *Blyth*, and *S. nudipes*, *Blyth*, *Tenasserim*.

S. atratus, *Blyth*, *Khasya*.

S. albinus, *Blyth*, *China*.

S. pulchellus, *Licht.*, *Central Asia*.

Sorolentus nigrescens, *Jerd.*

Corsira, *Gray*, *Blyth*.

S. sikkimensis, *Hodg.*

S. aterrimus, *Blyth*.

Mouse-tailed shrew of Sikkim, Nepal.

S. soccatus, *Hodg.*

Ting-zhing, . . . BHOT.

Tang-zhing, . . . LEPC.

Crossopus himalaicus, *Gray*.

Choopitai, . . . BHOT. | *Oong-lagniyu*, . . . LEPC.

The Himalayan water shrew of Sikkim.

Corsira alpina, *Jerdon* (*Sorex caudatus*, *Hodgson*, *Bly.*),

alpine shrew of Europe and Sikkim.

C. Newera-elia, *Kel.*, of Ceylon.

Feroculus macropus, *Kel.* (*Sorex macropus*, *Blyth*),

Ceylon.

Myogalea (*mygale*) or musk rat of N. America. The

scaly tails of this shrew are imported into India.

Fam. Erinaceidæ, Hedgehogs.

Erinaceus collaris, *Gray*, *Blyth* (*E. Grayii*, *Bennett*),

N.W. Provinces, Panjab, Sind.

E. micropus, *Blyth*.

E. nudiventris, *Horsf.* | *E. collaris*, *Gray*.

South India, Neilgherries.

E. mentalis, *Gray*, India; *E. spatangus*, *Benn.*, Him-

alaya; *E. Grayii*, *Benn.*, Himalaya; *E. auritus*, *Pallas*,

Central Asia; *E. megalotis*, *Blyth*, Afghan-

istan.

Fam. Tupaidæ.

Tupaia Elliotti, *Water.*, *Bl.*, Madras tree shrew, Eastern

Ghats.

Tupaia Peguana, *Less.*

T. Belangeri, *Wagner*. | Sikkim tree shrew, . . . ENG.

T. ferruginea, *var. Blyth*. | Kalli-tang-zhing, . . . LEPC.

Sikkim.

T. Javanica, Java; *T. tana*, Sumatra; *T. murina*,

Borneo; *T. ferruginea*, *Blyth*, Malaya.

ORDER, CARNIVORA, or Beasts of Prey.

Fere normales, *Gray*. | *Secundates*, *Blyth*.

TRIBE, PLANTIGRADA, walk on sole of foot.

Fam. Ursidæ, the Bears.

Ursus isabellinus, *Hors.*, *Blyth*.

U. Syriacus, *Hemp?*

Barf ka reetch, . . . HIND. | Harput, . . . KASH.

Bhalu, . . . " | Drin-mor, . . . LADAKH.

The snow bear, brown, yellow, grey, silver bear of

Himalayas.

Ursus Tibetans, *F. Cuv.*, *Blyth*.

U. torquatus, *Schinz.* | *U. ferox*, *Robin*.

Bhalak, . . . BENG. | *Bhalu*, . . . HIND.

Thom, . . . BHOT. | *Sona*, . . . LEPC.

Himalayan black bear, Himalaya, Assam.

U. Malayanus, Burma, Arakan, the Malay Peninsula.

U. euryphilus of Borneo.

U. labiatus, *Ell.*, *Blain*, *Blyth*.

Bradyptes ursinus, *Shaw*. | *Melursus lybicus*, *Meyer*.

Karadi, *Kaddi*, . . . CAN. | *Aswail*, . . . MAHR.

Yerid, . . . GERD. | *Rikaha*, . . . SANSK.

Banna, . . . KOL. | *Elugu*, . . . TEL.

Indian black bear or sloth bear, has a V mark on

breast. All India.

Allurus fulgens, *F. Cuv.*, *Bly.*, *Hard.*

A. ochraceus, *Hodgs.*

Wahdonka, . . . BHOT. | *Wah*, . . . NEPAL.

Sunnam, *Suknam*, *LEPC.* | *Negalya-ponya*, . . . "

Red cat bear, S.E. Himalaya, Nepal, Sikkim.

TRIBE, SEMI-PLANTIGRADA, *Blyth* (*Mustelidæ* of

Blyth), Badgers, Weasels, and Otters.

Fam. Melididæ, Badger-like animals.

Arctonyx collaris, *Cuv.*, *Blyth*.

Mydaus, *Gray*, *Hardw.* | *A. isonyx*, *Hodg.*

Bhalu-sur, . . . HIND. | Bear pig, Hog badger.

Nepal, Sikkim, E. Bengal, Assam, Sylhet, Arakan.

Arctonyx taxoides, *Blyth*, of Sylhet, Assam.

Mellivora Indica, *Jerdon*.

Urutaxus inauritus, *H.* | *M. ratel*, *Blyth*.

Ratelus Indicus, *Schinz.*

MAMMALIA.

Bhajrubhal, . . . BENG. | *Tavakaradi*, . . . TAM.

Biju, . . . HIND. | *Biyu-khawar*, . . . TEL.

Indian badger. All India.

Meles albo-gularis, *Blyth*, Tibet.

Taxidea leucura, *Blyth*, Tum-pa of Tibet.

Helictis Nepalensis, *Jerd.*

Gulo, *Hodg.*, *Blyth*. | *Oker*, . . . NEPAL.

Nepal wolverine, Nepal.

H. orientalis, Malaya.

Fam. Mustelidæ, Weasels and Martens.

Martes flavigula, *Jerdon*, Indian marten.

Mustela Hardwickii, *H.* | *Gatidictis chrysogaster*,

M. Gwatkinsii, *Jardine*. | *Jardine*.

Huniah, *Aniar*, . . . BHOT. | *Sakku*, . . . LEPC.

Tuturala, . . . KAMAON. | *Mal sampra*, . . . NEPAL.

India, Malaya.

Martes toufouss, *Hodgson*, Tibet, Ladakh, at 11,000 feet,

Afghanistan, Peshawur, Qu.? *M. abietum* of

Europe.

Mustela sibirica, *Blyth*, Tibet sable marten.

M. sub-hemachalana, *Hodg.*, *Blyth*.

M. humeralis, *Blyth*. | *Kran*, . . . KASH.

Zimiong, . . . BHOT. | *Sang-king*, . . . LEPC.

Himalaya, Nepal, Kashmir.

M. erminia, the stoat, the ermine, W. Himalaya,

Nepal.

M. kathiah, *Hodg.*, *Blyth*.

M. auriventer, *Hodg.* | *Kathiah nyal*, . . . NEPAL.

Yellow-bellied weasel of Nepal, Himalaya, Bhutan.

M. strigidorsa, *Horsf.*, *Hodgs.*, striped weasel of

Sikkim.

M. Horsfieldii, *Gary*, Bhutan.

M. temon, *Hodg.*, Tibet.

M. nudipes, *F. Cuv.*, Java, Malaya.

M. Sarmatica, *Pallas*, North and Central Asia, Afghan-

istan.

M. Sibirica, *Pallas*, China, is *M. Hodgsoni* of Gray.

M. larvata (*Putorius Tibetanus*, *Hodgs.*), Tibet.

Sub-Fam. Lutrinæ, Otters.

Lutra nair, *F. Cuv.*

Lutra Chinensis, *Gray*. | *L. Tarayensis*, *Hodgson*,

L. Indicus, *Gray*. | *Ell.*, *Blyth*.

Nir nai, . . . CAN. | *Ud Hud*, . . . HIND.

Indian otter, . . . ENG. | *Udni*, *Udbilli*, . . . "

Pani kuta, . . . HIND. | *Jal-manjer*, . . . MAHR.

Ceylon, India, Burma, Malaya.

L. vulgaris, *Erzleben*, *Bl.* (*L. monticola*, *Hodgson?*), the

hill otter of Inner Himalayas.

L. auro-brunnea, *Hodgs.*, Himalayas, Neilgherries?

Ceylon mountains?

L. monticola, *Hodgs.* (*L. vulgaris* apud *Jerdon*), of

Himalaya.

L. barang, *Raffles* (*Barangia varang*, *Gray*), Malay

Peninsula.

L. kutab, *Gray*, *Hugel*, Kashmir.

L. leptonyx, *Horsf.*, *Blyth*, clawless otter.

Aonyx Horsfieldii, *Gray*. | *Aonyx Sikkimensis*, *Hodg.*

Lutra indigata, *Hodg.*

Chusam, . . . BHOT. | *Suriam*, . . . LEPC.

Himalaya.

TRIBE, DIGITIGRADA, walk on the digits, typical

carnivora, very quick and speedy.

Fam. Felidæ or Cat tribe, lions, tigers, leopards,

cats, and lynxes.

Of these, the lion, pard, cheeta, chaus or wild cat,

and the caracal or lynx, are common to Africa and

India. Seven, viz. the tiger, pard, clouded

leopard, marbled tiger cat, large tiger cat, leopard

cat, and bay cat, are common to India, Assam,

Burma, and Malaya, and three of the seven,

viz. the clouded cat, marbled cat, and bay cat,

occur in the S.E. Himalaya. One, viz. the

ounce, is an outlayer of Central Asia; and only

three, the *F. Jerdoni*, *F. rubiginosa*, and *F. tor-*

quata, appear peculiar to the Peninsula of India.

Felis leo, *Linn.*, the Asiatic lion.

F. Asiaticus, *F. Gujratensis*, *Smec.*, *Benn.*, *Blyth*.

Shingal, . . . BENG. | *Sher*, *Babbar sher*, . . . SIND.

Untia-bag, *HIND.* in *GUJ.* | *Singhas*, . . . "

Allahabad, Jubbulpur, Ootch, Gujerat, Gwalior, "

Felis tigris, Linn., the tiger.

Tigris regalis, Gray, *Blyth*.

Go-vagh, BENG. Bag, Bagni, HIND.
Tut, BHAGULPUR. Sela-vagh,
Tukh, BHOT. Suhtong, LEPOH.
Huli, CAN. Wuhag, MAHR.
Nahar, CENTRAL INDIA. Puli, TEL.
Nongya-chor, GORAKHPUR. Tagh, TIB.
All India, up to 6000 or 7000 of Himalayas; measures
up to 10 feet 2 inches long.

F. pardus, Linn., the pard.

F. leopardus, Schreber. | *Leopardus varius*, Gray.

Var. a. Larger, the panther.

F. pardus, Hodg. | *F. leopardus*, Temm.
Honiga, CAN. Chita, Chita-bag, HIND.
Burkal, GONDI. Adnara?
Bay-hira, HIMALAYA. Anea, MAHR.
Tahir-hay, Chinna puli, TEL.
Tendwa, HIND. Sik, TIB.
India.

Var. b. Smaller, the leopard.

F. leopardus, Hodg. | *F. longicaudata*, Valenc.
F. pardus, Temm.
Billa, BAORI. Bibia-bag, HIND.
Kerkal, CAN. Ghur-hay, SIMLA.
Gor-bacha, HIND. Dheer-hay,
Borbacha, " India.

F. melas, Peron, black leopard (*F. perniger*, Hodg.),
Ceylon, India, Himalaya, Assam, Malayana.

F. uncia, Schreber, *Blyth*, Hodg., ounce.

F. uncioides, Hodg. | *F. irbis*, Ehrenberg.
F. pardus, Pallas.
Sah, BHOT. Pah-le, LEPOH.
Snow leopard, ENG. Burrel-hay, SIMLA.
Thur-wag, KANAWAR. Iker, TIB.
Himalaya, at great elevations, and on Tibetan side.

F. diardi, Desm., *Blyth*. | *F. nebulosa*, Griff.
F. macrocelis, Temm., | *F. macroceloides*, Hodg.
Horsf.

Clouded leopard, ENG. Lam-chittia of the KHAR.
Zik, BHOT. Tungmar, LEPOH.
S.E. Himalaya, Nepal, Sikkim, Burma, Sumatra,
Java, Borneo.

F. nebulosa, Jerdon (*F. diardi*, *Blyth*), Himalaya.
F. viverrina, Benn., *Blyth*, large tiger cat.

F. viverriceps, Hodg., | *F. Himalayana*, Jardine.
Hardw. | *F. Bengalensis*, Buch.
F. Celidogaster, Temm., | *Ham.*
Gray, *Blyth*.

Bag-dasha, BENG., HIND. | Mach-bagru, HIND.
Bengal, Burma, Malayana, China.

F. marmorata, Martin, *Blyth*. | *F. diardi*, Jerd.
F. Charltoni, Gr., *Blyth*. | *Leopardus dosul*, Hodg.
F. Ogilbii, Hodg.

F. Duvancelli, Hodg. | Marbled tiger cat of Sikkim, Assam, Burma,
Malayana.

F. Bengalensis, Desmoulins. | *F. pardichroua*, Hodg.
F. Sumatrana, Horsf. | *Leopardus Chinensis*, Gr.
F. Javanensis, Jerd., Horsf. | L. Reevesii, Gr.
F. minuta, Temm. | L. Elliotti, Gr.
F. undulata, Schinz. | *Chaus servalinus*, Gr.
F. Nepalensis, Hodg.

Leopard cat, ENG. Wagati, MAHR.
Hilly regions of Ceylon, India, Himalaya, Tibet,
Assam, Burma, Malayana, Sumatra, Java. Fierce
and variable.

F. Nepalensis, Vigors, probably a hybrid.
F. Jerdoni, *Blyth* (*F. rubiginosa*, Geoff. ?), lesser leopard
cat, Peninsula of India.

F. aurata, Temminck, Moormi cat.
F. Moormensis, Hodg. | *F. nigrescens*, Hodg.
F. Temminckii, Vigors, | *Horsf.*, *Blyth*.

Black cat or bay cat of Nepal, Sikkim.

F. rubiginosa, Is. Geoff., Belanger.
F. Jerdoni, *Blyth*. | Namalli pilli, TAM.
Rusty spotted cat of Ceylon, India Peninsula.

F. planiceps, Vigors, Malayana.

b. LYNXINE GROUP.

F. torquata, F. Cuv., *Blyth*.

F. ornata, Gray, *Hardw.* | *F. Huttoni*, *Blyth*.
Blyth. | *Leopardus incoonspleus*,
Gray.
F. servalina, Jardine. | Spotted wild cat of Salt Range to Central India.

F. chaus, Guld, F. Cuv., *Blyth*, jungle cat.
F. affinis, Gray, *Hardw.* | *F. Jaquemontii*, Is. Geoff.
F. kutas, Pears. | *F. (lynchus) erythnotis*,
Hodg.
Chaus lybicus, Gray.

Ban-beral, BENG. | Mota-lahn manjur, MAHR.
Katas, " | Cherru puli, MAL.
Birka, BHAGULPUR. | Jinka pilli, TEL.
Mant-bek, CAN. | Kada-bek, WADDAR.
Jangli billi, HIND. | Bella-bek,
All India.

Felis caracal, Schreb., *Blyth*.
Caracal melanotis, Gray, Wolf. | Shiah-gosh, PERS.
Red lynx of Arabia, Persia, Tibet, Vindhya, Africa,
Central India, N.W. Provinces, Panjab.

F. isabellina, *Blyth*, Tibet.
F. manul, *Blyth* (*F. nigripictus*, Hodgson), Tibet.
F. megalotis, Temm., Timor.
F. jubata, Schreber, hunting leopard.
F. guttata, Hermann. | *F. venatica*, A. Smith.
Tendua bag, BENG. | Yuz, Cheeta, HIND.
Chircha, CAN. | Laggar,
Sivungi, " | Chita pulli, TEL.
Africa, S.W. Asia, India.

Leopardus Japanensis, Gray, Japan.

L. brachyurus, Svinhoe, Formosa.

Fam. Viverridae.

Sub-Fam. Hyeninae, Hyenas.

Hyena striata, Zimmerman, striped hyena.
H. vulgaris, Desm., Ell., | Hunder, HIND.
Bl. | Jhirak,
Har-vagh, BENG. | Lokra-bag, Lakra-bag,
Rera, CENTRAL INDIA. | Nakra bag,
Katkirba, CEYLON. | Taras, HIND., MAHR.
Kirba, " | Korna gandu, TEL.
All India.

Sub-Fam. Viverrinae, Civets.

Viverra zibetha, Lin., *Blyth*.
V. Bengalensis, Gray, | *V. melanurus*, Hodg.
Hardw. | *V. orientalis*, Hodg.
V. undulata, Gray. | *V. civettoides*, Horsf.
Puda gaula, BENG. | Large civet cat, ENG.
Mach-bandar, BENG., HIND. | Katas, HIND.
Bag-dos, " | Sa-phiong, LEPOH.
Kung, BHOT. | Bhran, Nit-biralu, NEPAL.
All S.E. of Asia.

V. civettina, *Blyth*. | *V. zibetha*, Waterh. | Malabar civet cat, ENG.
V. S.W. parts of Peninsula of India.

V. Malaccensis, Gmel., *Blyth*. | *V. rasee*, Horsf. | *V. pallida*, Gray.
V. Indica, Ell., Geoff.

Jowadi manjur, BENG. | Gando-gaula, HIND.
Katas, " | Kasturi, MAHR.
Gando-gokul, " | Sayer, NEPAL.
Lesser civet cat, ENG. | Bug-nyul,
Mashk billi, HIND. | Punagu-pilli, TEL.
All India.

V. tangalunga, Gray, Malayan islands east to the
Philippines.

V. rasee, Sykes, Western Ghats.
Prionodon pardicoides, Hodg., tiger civet.
Zik-chum, BHOT. | Sulyu, LEPOH.
S.E. Himalaya, Nepal, Sikkim.

Parodoxurus musanga, Jerdon.

P. typus, F. Cuv., Ell. | *P. fasciatus*, Gray.
P. Pallastii, Gray. | *P. prehensilis*, Pallas.
P. musangoides, Gray. | *Viverra hermaphrodita*,
P. Crossii, Gray. | Pallas.
P. dubius, Gray.

Bhondar, BENG. | Khatas, HIND.
Kera-bek, CAN. | Jhar ka kutta,
Toddy cat, Tree cat, ENG. | Ud, MAHR.
Menuri, HIND. | Mara pilli, MAL.
Lakati, " | Manu-pilli, TEL.
Ceylon, India, Malayana, Burma.

P. leuco-mystax, Gray, Malayan Peninsula and islands.
P. quadriscryptus, Hodg., Qu. ? *P. musanga*, Var.
P. Derbyanus, Malayan Peninsula and islands.
P. Tytleri, Tytler, Qu. ? *P. musanga*, Var., Andamans.
P. trivirgatus, Temm., Malayan Peninsula and islands.
P. Grayi, Benn., Blyth.

P. Nepalensis, Hodg. | *P. bondar*, Temm.
P. auratus, Blain. | Hill tree cat, . . . ENG.

P. Zeylanicus, Pallas, Ceylon.
P. bondar, Gray, Terai tree cat.
P. hirsutus, Hodgson. | *P. Pennantii*, Gray, Hardw.
Bondar, Baum, . . . BENG. | Malwa, . . . NEPAL.
Chinghar, . . . HIND. | Machabba, . . . " "
Nepal Terai, Bengal, Behar.

Paguma laniger, Gray (*Martes laniger*, Hodgson), Tibet and Snowy Himalaya.

Arctictis binturong, Jerdon.
Ictides ater, F. Cuv. | *Viverra binturong*, Raffles.
Paradoxurus albifrons. | Black bear cat, . . . ENG.
Nepal, Assam.

Cynogale Bennettii, Gray (*Potamphilus barbatus*, Kuhl.), Malay Peninsula.

Herpestes griseus, Geoff., Blyth.
H. pallidus, Schinz. | *Mangusta mungos*, Ell.
Mungli, CAN. | Newara, HIND.
Madras mungoose, . . . ENG. | Nyul, " "
Koral, GONDI. | Mangus, . . . HIND., MAHR.
Newal, HIND. | Yentawa, TEL.
Peninsula of India.

H. Malaccensis, F. Cuv., Blyth.
H. nyula, Hodg. | *Cynogale nyula*, Gray.
Baji, Biji, BENG. | Nyul, HIND.
Newal, HIND. | Newara, " "
Bengal to Malayana.

H. monticolus, Ell. (*H. Jerdoni*, Gray).
Long-tailed mungoose, ENG. | Konda yentawa, . . TEL.
Eastern Ghats.

H. fulvescens, Kcl. (*Onychogale Maccarthie*, Gray), Ceylon.

H. Smithii, Gray, Blyth.
H. rubiginosus, Kelaart. | *Calictis Smithii*, Gray.
H. Elliotti, Blyth. | Ruddy mungoose, . . ENG.
Ceylon and S. E. of Peninsula.

H. Nepalensis, Gr., Blyth.
H. auro-punctatus, Hodg. | *H. pallipes*, Blyth.
Gold-spotted mungoose of Afghanistan, Panjab, Lower Himalayas, Bengal, Assam, Burma, Malayana.

H. Javanicus, Java and Malayana.
H. thysanurus, Wagner, Kashmir.
H. fuscus, Waterh., Bl., brown mungoose.
H. vitticollis, Benn., Ell., Blyth (*Teniolale vitticollis*, Gray), striped-necked mungoose of Western Ghats, Nellocherries.

H. brachiuus, Malayana.
H. exilis, Eastern Archipelago.
Urva cancrivora, Hodg., Bly.

Gulo urva, Hodg. | *Osmetiotis fusca*, Gray.
Viverra fusca, Gray.
Crab mungoose, S. E. Himalaya, Assam, Arakan.

Fam. Canidae, the Dog tribe.

Canis pallipes, Sykes, Blyth (*C. lupus*, var. Ell.).
Bighana, BUNDELKHAND. | Bhera, Bheria, . . HIND.
Tola, OAK. | Nekra, " "
Indian wolf, ENG. | Hunder, Hurar, . . " "
Landgab, HIND. | Toralu, TEL.
All India.

C. laniger, Hodg., Tibet white wolf.
Chankodi, . . KAMAON. | Changu, TIB.
Himalaya.

C. niger, Jerd., black wolf of Tibet, the hakpo-chanko.
C. chance, Gray, red wolf, gold wolf of Tibet.
C. aureus, Linn., Bly., Ell., the jackal.

Sial, *Sial*, *Sialu*, BENG. | Kola, Kolia, . . HIND.
Amu, BHOT. | Ghidar, " "
Nari, CAN. | Shigal, PERS.
Nerka, GONDI. | Nakka, TEL.
All India, Ceylon, Burma, Asia, S. Europe.

Canis rutilans, Jerd., wild dog.
Canis Dukhunensis, Syk. | *Canis primævus*, Hodg.
C. familiaris, wild, var. E.

Pao-ho, BHOT. | Kolsun, Kolsuna, MAHR.
Sakki-sarai, . . . DUKH. | Shen-nai, MAL.
Eram-naiko, . . . GONDI. | Kutta, HIND., a dog,
hence, Jangli-k, Sona-k, Ran-k, Ban-k, Ram-na-k, Reza-k, Ada-vi-k, TEL.
Buansu, W. Himalaya to Sikkim, . . . KASH. | Sidda-ki, TIB.
Ran hun, KASH.
Suhu-tum, . . . LEPCH.
Kolasa, Kolasa, MAHR.

All India, Burma, and Malay Peninsula.

Vulpes Bengalensis, Jerdon, Sh., Bly., Ell., Hardw.
Canis rufescens, Gray. | *C. chrysurus*, Gray.
C. kokree, Sykes. | *C. xanthurus*, Gray.
C. corsac, Auct.

Khok-sial, BENG., HIND. | Lokri, Lokeria, . . HIND.
Kong, CAN. | Khekar, Khikar, . . " "
Kemp-nari, " | Kokri, . . . HIND., MAHR.
Chandak-nari, " | Konka nakka, . . . TEL.
Indian fox, ENG. | Gunta nakka, . . . " "
Lumri, Lomri, . . . HIND. | Poti-nara, " "
All India.

V. leucopus, Blyth, desert fox of N.W. India, Cutch, Panjab.

V. ferrilatus, Hodg. (*Cynalopex ferrilatus*, Blyth), a pretty, small fox of Tibet.

V. montanus, Pears., Blyth., hill fox.
V. Himalaicus, Ogilby. | *V. Nepalensis*, Gray.

Loh, KASH. | Wamu, NEPAL.
Himalayaa.

V. pusillus, Blyth (*V. flavescens*, Blyth), Panjab fox, Salt Range.

V. fuliginosus, Hodg., Thec-ke, Sikkim, Tibet.

V. flavescens, Gray (*V. montanus*, Hodg., Horsf.), Tibet.
V. Griffithii, Blyth (*V. flavescens*, Blyth), Afghanistan.

ORDER, CETACEA, the Whale tribe.

Cetæ, *Auctorum*. | *Mutalata*, Owen.

SUB-ORDER, MYSTACOCETI, the Balænoidea or Whale-bone Whales.

Balaena Japonica, North Pacific, Japan Seas.

B. Australis, S. Atlantic, S. Seas.

B. mysticetus, Arctic Seas, Greenland whale.

B. Biscayensis, N. Atlantic.

B. antipodarum, S. Pacific.

B. antarctica, S. Seas.

B. Novæ Zelandiæ, S. Seas.

Neobalaena marginata, Australian and N. Zealand Seas.

Rachianectes glaucus, N. Pacific.

Megaptera, sp., humpbacks, all seas.

Balaenoptera borealis, India, musculus, rostrata, Sibaldii, called rorquals, finners, and razorbacks.

B. Indica is of the Bay of Bengal, near Ceylon.

SUB-ORDER, ODONTOCETI, the Delphinoides or Toothed Whales.

Fam. Physeteridae. Sub-Fam. Physeterinae.

Physeter macrocephalus.

P. simus, Owen (*Euphyseter simus*), Bay of Bengal.

Kogia breviceps, Bay of Bengal, N. and S. Pacific.

Sub-Fam. Ziphiinae.

Berardius arnouxii, N. Zealand.

Fam. Platanistidae.

Platanista Gangetica, Jerd.

Delphinus rostratus, Shaw., Hardw.

Sialuk, BENG. | Susa, Sona, Susu, HIND.

Gangetic porpoise, ENG. | Siumar, SANSK.

Ganges, Jumna, Gogra, Brahmaputra.

P. Indii, Blyth, Indus porpoise of the river Indus.

Fam. Delphinidae.

Monodon monoceros, narwhal, Arctic Seas.

Delphinapterus leucas, Arctic Seas.

Phocoena communis, porpoise.

P. melas, Japan.

P. brevirostris, Bay of Bengal.

Orcella brevirostris, Bay of Bengal.

O. fluminalis, Irawadi.

Orca, sp., Grampuses, all seas; the number of species uncertain.

Orca gladiator?

Globiocephalus Indicus, Blyth, Indian ca'ing whale, Bay of Bengal.

Grampus griseus, N. Atlantic.

G. Richardsoni, Cape.

Fam. Delphinidae, Porpoises.

- Delphinus perniger*, Ell., Blyth, Bay of Bengal.
D. plumbeus, DuRoi, Malabar coast.
D. euryome, Gray, Bengal Bay.
D. godama, Bengal Bay.
D. sandama, Owen, Bengal Bay.
D. lentiginosus, Owen, Bengal Bay.
D. maculiventer, Owen, Bengal Bay.
D. fusiformis, Owen, Bengal Bay.
D. pomecra, Owen, Bengal Bay.
D. delphis, Atlantic, Mediterranean dolphin.
D. Forsteri, Australian Seas.
D. Bairdii, N. Pacific.
D. Sinensis, Chinese Seas.
D. albirostris, N. Atlantic.
D. Peronii, S. Seas.
D. tursio, British Seas.
D. leucopleuris, N. Atlantic.
Steno frontatus, Cuvier, Bengal Bay.
S. attenuatus, Gray, Bengal Bay.
Neomeris phocaenoides, Duss., Bengal Bay.

SUB-ORDER, SIRENIA, Ill., Herbivorous Cetacea.

- Halicornes dugong*, Jerd.
Dugong trichechus, Erzl., Bly., F. Cuv.
H. cetacea, Illiger. | H. India, Demarest.
Dugong, . . . ENG. | Talla maga, . . . SINGH.
 Ceylon, Andamans, Malaya, Singapore, marine
 lagoons of Malabar.
H. tabernaculi, Ruppell, Red Sea.
H. Australia, Australia.

The dugongs feed on seawater algae. They inhabit the shallow bays and creeks of the Red Sea, the east coast of Africa, Ceylon seas, and islands of the Bay of Bengal, the Eastern Archipelago, and north coast of Australia, and are never met with in the high seas far away from the shores.

ORDER, RODENTIA, the Gnawing tribe, Glires of authors.

Fam. Sciuridae, or Squirrels.

- Sciurus Malabaricus*, Schinz.
S. maximus, Bly., Horsf. | Jangli gilhari, . . . HIND.
 Malabar, Wynad, Neilgherries, Travancore.
S. maximus, Schr., Ell., Blyth.
Kat berral, . . . BENG. | Karrat, . . . HIND.
Rasu, Ratuphar, . . . | Kondeng, . . . KOL.
Per-warsti, . . . GOND. | Bot-udata, . . . TEL.
 Red squirrel of Central India.
S. Elphinstonei, Sykes.
S. Bombayanus, Sch., E. | Red squirrel of Bombay.
Kes-ahnal, . . . CAN. | Shekra, . . . MAHR.
 Western Ghats, Malabar, Mahabaleswar.
S. macrurides, Hodgson.
S. bicolor, var. India, | *S. giganteus*, M'Clelland.
 Horsf., Blyth.
Shingsham, . . . BHOT. | Le-hyuk, . . . LEPOCH.
 Black hill squirrel, ENG.
 S.E. Himalaya, Nepal, Sikkim, Assam, Burma.
S. macrourus, Forst., Blyth, Horsf., Hardw.
S. Ceylonensis, Bodd. | Grizzled hill squirrel, ENG.
 Ceylon, S. India.
S. ephippium, Muller, Borneo.
S. lokriah, Hodgson, Blyth.
S. subflaviventris, M'Cl. | Orange-bellied grey squirrel.
 Zhamo, . . . BHOT. | Killi, . . . LEPOCH.
 Lokria, . . . NEPAL. | Killi-tingdon, . . .
 S.E. Himalaya, Nepal, Sikkim, Bhutan.
S. lokrioides, Hodg., Blyth.
S. lokriah, Gray. | Hoary-bellied grey squirrel.
 S.E. Himalaya, Nepal, Sikkim, Bhutan.
S. Assamensis, M'Clell., Sylhet, Daoca.
S. ferrugineus, F. Cuv., N.E. India.
S. erythronus, Pallas, N.E. India.
S. erythrogaster, Blyth, N.E. India.
S. hyperthrus, Blyth, N.E. India.
S. chrysonotus, Blyth, N.E. India.
S. hyperythrus, Is. Geoff., N.E. India.
S. Phayrei, Blyth, N.E. India.
S. Blanfordi, Blyth, N.E. India.
S. strodorsalis, Gray, N.E. India.
S. palmarum, Gm., Bl., Ell.
S. penicillatus, Leach. | Common striped squirrel.

- Beral*, Lakki, . . . BENG. | Kharri, . . . MAHR.
Alalu, . . . CAN. | Vodata, . . . TEL.
Gilhari, . . . HIND. | Urta, . . . WADNAR.

Peninsula of India.

- S. triatriatus*, Waterhouse.
S. palmarum, Ell., Bl. | *S. Kelaarti*, Layard.
S. Brodiei, Layard.
 Striped jungle squirrel of Ceylon and Peninsula of India.
S. Layardi, Blyth, striped squirrel of Ceylon and Travancore.
S. sublineatus, Water., Blyth.
S. Delesserti, Gervais. | Neilgherry striped squirrel.
 Ceylon, forests of S. India, Travancore, Neilgherry.
S. insignis, Horsf., Java.
S. M'Clellandi, Horsf., Blyth, Hodg.
S. chikhura, Blyth. | *S. Pembertonii*, Blyth.
 Small Himalayan squirrel. | Kalli gangdin, . . . LEPOCH.
 N.E. India, Himalaya, Sikkim, Bhutan, Khasya.
S. barbei, Blyth, Tenasserim.
S. plantani, Horsf., Java.
S. Berdmorei, Blyth, Mergui.
S. Europæus, Linn., North and Central Asia, Europe.
Pteromys petaurista, Pallas, Blyth.
P. Philippensis, Ell. | *P. oral*, Tick.
 Brown flying squirrel, ENG. | Pakya, . . . MAHR. of GHAT.
 Oral of, . . . KOL. | Para-chaten, . . . MALAY.
 Forests of Ceylon, Peninsula of India, and Central India.
P. inoratus, Is. Geoff., Jacq., Blyth.
P. albiventer, Gray. | Rual-gugar, . . . KASH.
 White-bellied flying squirrel, N.W. Himalaya, at
 6000 to 10,000 feet.
P. magnificus, Hodg., Blyth.
P. chrysothrix, Hodg. | Biyom, . . . LEPOCH.
Sciuropterus nobilis, Gr.
 Red-bellied flying squirrel, S.E. Himalaya, Nepal
 to Bhutan, Khasya Hills, Assam Hills.
P. cinerascens, Blyth, Burma.
P. nitidus, Geoff., Malay Peninsula.
P. elegans, S. Muller, Java.
P. Philippensis, Gray, Philippines.
Sciuropterus caniceps, F. Cuvier, Gray, Blyth.
P. senex, Hodg. | Grey-headed flying
 Biyom chimbo, . . . LEPOCH. | squirrel, . . . ENG.
 Nepal, Sikkim.
S. fimbriatus, Gr., Blyth.
P. Leachii, Gray. | Grey flying squirrel.
 N.W. Himalaya, Simla to Kashmir.
S. baberi, Blyth, Afghanistan.
S. alboniger, Hodgson, Blyth.
S. Turnbulli, Gray.
 Piam piyu, . . . BHOT. | Khim, . . . LEPOCH.
 Black and white flying squirrel of Nepal to Bhutan.
S. villosus, Blyth.
S. sagitta, Walker. | Hairy-footed flying squirrel.
 Bhutan, Sikkim, Assam, at 3000 to 6000 feet.
S. fusco-capillus, Jerdon, Blyth, small Travancore
 flying squirrel.
S. Layardi, Kel., Blyth, Ceylon.
S. spadiceus, Blyth, Arakan.
S. Phayrei, Blyth, Pegu, Tenasserim.
S. sagitta, Linn., Malaya.
S. Horsfieldii, Waterhouse, Malaya.
S. genibarbis, Horsf., Malaya.

Sub-Fam. Arctomydinae, Marmots.

- Arctomys bobac*, Sch., Blyth, Pal.
A. Tibetanus, Hodg. | *A. caudatus*, Jacq.
A. Himalayanus, Hodg.
 Chibi, . . . BHOT. | Lho, Potsammlong, LEPOCH.
 Brin, . . . KASH. | Kadia-piu, . . . TR.
 Tibet marmot, white marmot of E. Europe, Central
 Asia, Snowy Himalaya, Kashmir, to Sikkim, at
 12,000 to 16,000 feet.
Arctomys himachalanus, Hodgson, red marmot.
A. Tibetanus, Hodgson. | Drun, . . . KASH.
 Chipi, . . . BHOT. | Sammlong, . . . LEPOCH.
 Kashmir, N.W. Himalaya, at 8000 to 10,000 feet.

Fam. Muridae, the Rat tribe, includes the Jerbons, the Dipodidae or Jerboide of authors.

Sub-Fam. Murinæ, Rats and Mice.

- Gerbillus Indicus*, *Ell.*, *Jerdon*, *Blyth*.
Dipus, *Hardw.* | *G. Ouvieri*, *Waterhouse*.
G. Hardwickii, *Gray*.
Jhenku indur, *BENG.*, *SAN.* | *Hurna mus*, . . . *HIND.*
Billa ilei, . . . *CAN.* | *Yeri-yelka*, *Yelka*, . . . *TEL.*
Indian jerboa rat, . . . *ENG.*
All India.
G. erythraurus, *Gray*, *Jerdon*, desert jerboa rat of
Panjab, *Hurriana*, *Jumna*.
Nesokia Indica, *Jerdon*.
Aricola Indica, *Gray*. | *M. providens*, *Elliot*.
Mus kok, *Hardw.* | *M. pyctoris*, *Hodgson*.
Kok, . . . *CAN.* | *Galatta koku*, . . . *TEL.*
Indian mole rat, all *India*, *Ceylon*.
N. Hardwickei, *Jerdon*.
N. Huttoni, *Blyth*. | *Short-tailed mole rat*.
Gardens of India, *Afghanistan*, *Bahawalpur*.
N. Griffithii, *Horsf.* ? *Afghanistan*.
N. hydrophila, *Gray* ?
Mus hydrophilus, *Hodg.* | *Arvicola hydrophila*, *Hodg.*
Small Nepal water-rat.
N. macropus, *Jerdon* (*Mus hydrophilus*, *Hodgson*),
large Nepal water-rat.
Mus bandicota, *Bechstein*, *Blyth*.
M. giganteus, *Hardw.*, *L.* | *M. perchal*, *Shaw*.
M. Malabaricus, *Shaw*. | *M. setifer*, *Horsf.*, *Elliot*.
M. nemorivagus, *Hodg.*
Ikria, *Ikara*, . . . *BENG.* | *Ghus*, *Ghous*, . . . *HIND.*
Heggin, . . . *CAN.* | *Indur*, . . . *SANKE.*
Bandicoot-rat, . . . *ENG.* | *Pandi koku*, . . . *TEL.*
Pig-rat or bandicoot-rat of Ceylon, *India*, *Malayana*.
M. Andamensis, *Blyth*.
M. Nicobaricus, *Scherzer*. | *M. setifer*, *Cantor*.
Nicobar, *Andaman*, and *Malay Peninsula*.
M. rattus, *Linn.*, *Bly.*, *Ell.*, black rat.
M. rattoides, *Hodgson*. | *M. Andamensis*, *Blyth*.
All India.
M. decumanus, *Pall.*, *Blyth*, *Elliot*.
M. norvegicus, *Buffon*. | *M. decumanoides*, *Hodg.*
Demsa indur, . . . *BENG.* | *Brown rat*, . . . *ENG.*
Manei ilei, . . . *CAN.* | *Ghur-ka-chuha*, . . . *HIND.*
All India, *Akyab*.
M. plurimammis, *Hodgson*, *Nepal rat*.
M. Tarayensis ? *Hodgson* ? *Qu. M. decumanus* ?
M. infralineatus, *Elliot*, *Blyth*.
M. Elliotii, *Gray*. | *M. fulvescens*, *Gray*.
M. Asiaticus ? *Kel.*
Striped-bellied field-rat, *Bustar*, *Madras*.
M. Morungensis ? *Hodgson* ? *Nepal Terai*.
M. brunneus, *Hodgson*.
M. nemoralis, *Blyth*. | *M. squicaudalis*, *Hodg.*
Tree-rat of Ceylon, *India*.
M. rufescens, *Gray*.
M. flavesceus, *Ell.*, *Bly.* | *M. brunneusculus*, *Hodg.*
M. arboreus, *Buch. Ham.*, | *Gachua indur*, . . . *BENG.*
Horsf.
Rufescent tree-rat, all *India*.
M. niviventer, *Blyth*, *Hodgson*, white-bellied house-rat
of Nepal.
M. nitidus, *Blyth*, *Hodgson*, shining brown rat, *Darji-*
ling.
M. caudator, *Hodgson*, *Horsfield*.
M. cinnamomeus, *Blyth*. | *Chestnut rat*, . . . *ENG.*
Nepal, *Burma*.
M. oleraceus, *Sykes*, *Elliot*, *Blyth*.
M. dumeticolus, *Hodgson*. | *M. povensis*, *Hodgson*.
Marad ilei, . . . *CAN.* | *Meina-yelka*, . . . *TEL.*
Long-tailed tree-mouse, *Ceylon*, all *India*.
M. Nilagiricus, *Jerdon*, *Neilgherry tree-mouse*.
M. concolor, *Blyth*, *thatch-rat of Pegu and Tenasserim*.
M. badius, *Blyth*, *Burma*.
M. Peguensis, *Blyth*, *Burma*.
M. glioides, *Blyth*, *Khasya*.
M. castaneus, *Gray*, *Philippines*.
M. palmarum, *Sch.*, *Nicobars*.
M. urbanus, *Hodgson*, *Blyth*.
M. musculus, *Ell.*, *Kel.* | *M. Manei*, *Gray*.
M. dubius, *Hodgson*. | *Common Indian mouse*.
Ceylon, *India*.

- M. homourus*, *Hodgson*, *Blyth*.
M. Nipalensis, *Hodgson*. | *Hill-mouse*, . . . *ENG.*
Himalaya, from *Panjab* to *Darjiling*.
M. crassipes, *Blyth*, large-footed mouse of *Mussoori*.
M. Darjilingensis, *Hodg.*, *Horsf.*, *Darjiling mouse of*
Neilgherry, *Darjiling*.
M. Tytleri, *Blyth*, long-haired mouse, *Dhara Doon*.
M. Bactrianus, *Blyth*.
M. gerbillinus, *Blyth*. | *M. Theobaldi*, *Blyth*.
Sandy mouse of Afghanistan, *Kashmit*.
M. cervicolor, *Hodgson*, *Blyth*.
M. albidiventris, *Blyth*. | *Fawn field-mouse*, . . . *ENG.*
Bengal, *Nepal*, *Malabar*.
M. strophiatius, *Hodgson*, *Nepal*.
M. fulvidiventris, *Blyth*, *Ceylon*, is the *M. cervicolor* of
Kelaart.
M. terricolor, *Blyth*, earthy field-mouse of *South India*,
Bengal, the *M. lepidus*, *Elliot*.
Leggada platythrix, *Jerdon*.
Mus platythrix, *Sykes*, | *Gijeli-gadu*, . . . *TEL.*
Bly., *Elliot*. | *Legyade*, . . . *WADDAR*.
Kal ilei, . . . *CAN.* | *Kal-yelka* of . . .
The brown spiny mouse of S. India.
L. spinulosus, *Blyth*, the dusky spiny mouse of the *Panjab*
and Malabar.
L. Jerdoni, *Blyth*, *Himalayan spiny field-mouse of*
Kanawar, *Sutlej*.
L. lepidus, *Jerdon*, small spiny mouse.
Mus lepidus, *Elliot*. | *Leggada booduga*, *Gray*.
Chitta-burkani, . . . *TEL.* | *Chitta-ganda*, . . . *TEL.*
Obit-yelka, | *Chitta-yelka*,
S. India.
Platacanthomys lasiurus, *Blyth*, pepper rat or long-
tailed spiny mouse of Western Ghata, *Malabar*,
Cochin, and *Travancore*.
Golunda Elliotii, *Gray*, *Blyth*.
Mus hirsutus, *Elliot*. | *M. Coffæus*, *Kelaart*.
Gulandi, *CAN.* | *Sora panji gadur*, *YANADI*.
Gulat-yelka of *WADDAR*.
Bush-rat, *coffee-rat*, of *Ceylon*, *S. India*.
G. meltaada, *Gray*.
Mus lanuginosus, *Elliot*. | *Metta-yelka*, *TEL. of YAN.*
Kera ilei, *CAN.* | *Mettade*, . . . *WADDAR*.
Soft-furred field-rat of S. India.
G. newera, *Kelaart*, *Newera-ellia*.
Rhizomys badius, *Hodgson*, *Blyth* (*R. minor*, *Gray*),
bay bamboo rat, *Teral of Sikkim*.
R. pruinus, *Blyth*, *Khasya Hills*.
R. castaneus, *Blyth*, *Burma*.
R. Sumatrensis, *Blyth*, *Malay Peninsula and islands*.
R. sinicus, *Gray*, *China*.

Sub-Fam. Arvicolinæ, Voles, etc.

- Arvicola Roylei*, *Gray*, *Royle*, *Blyth*, *Himalayan vole*,
of Panjab, *Kashmir*.
A. thricotis, *Jerdon*, *Darjiling*.
Neodon Sikkimensis, *Hodgson*, *Blyth*, *Sikkim vole*.
Phaiomys leucurus, *Blyth*, *Tibet*.

Fam. Hystricidæ.

Sub-Fam. Hystricinae, Porcupines.

- Hystrix leucura*, *Sykes*, *Blyth*, *Elliot*.
H. hirsutirostris, *Brandt*. | *H. cristata Indica*, *Gray*,
H. Zeylanensis, *Blyth*. | *Hardwicke*.
Sajru, *BENG.* | *Sahi*, *Sayal*, *Sarsel*, *HIND.*
Yed, *CAN.* | *Salendra*, *MAHR.*
Ho-igu, *GONDI.* | *Dumai*, *NEPAL.*
Saori, *GUJ.* | *Yeddu pandi*, *TEL.*
The Indian porcupine, all *India*.
H. Bengalensis, *Blyth* (*H. Malabarica*, *Sclater*), *Bengal*
porcupine, *Malabar*, *Assam*, *Bengal*.
H. longicauda, *Marsden*, *Blyth*.
H. alophus, *Hodgson*. | *Acanthion Javanicum*, *F.*
H. Hodgsonii, *Gray*. | *Ouvier*.
Sa-thung, *LEPCH.* | *Anchotis dumai*, . . . *NEPAL.*
O'-e, *LIMBU.*
Creastless porcupine, *Nepal and Sikkim*.
Atherura fasciculata, *Jerdon*, *Tiperah Hills to Malay*
Peninsula.

Fam. Leporidae, or Hares.

- Lepus ruficaudatus*, *Geoffroy*, *Blyth*, *Indian hare*.
L. Indicus, *Hodgson*. | *L. macrotus*, *Hodgson*.

Sasru, . . . BENG. | Lamna, . . . HIND.
 Kharra, . . BENG., HIND. | Khar-gosh, HIND., PERS.
 Molol, . . . GONDI.

Panjab, Hindustan, Malabar?

L. nigricollis, *F. Cuv., Bly., Ell.*
 L. melanauchen, *Tenn.* | Sassa, . . . MAHR.
 Malla, . . . CAN. | Musal, . . . TAM.
 Khar-gosh, . . . HIND. | Kundeli, . . . TEL.

Black-naped hare of Peninsula of India.

L. Penguensis, *Blyth*, Upper Burma.
 L. Sinensis, China.
 L. pallipes, *Hodgson* (L. tollai, *Pallas, Gray*), Tibet.
 L. Tibetanus, *Waterhouse* (L. oistolus, *Hodgson*), the
 Ri-bong of the Bhot, Tibet.
 L. hispidus, *Pearson, Blyth*, hispid hare of Terai, from
 Gorakhpur to Assam.

Lagomys Koylei, *Ogilby*, Himalayan mouse hare.
 L. Nepalensis, *Hodgson*. | L. Hodgsonii, *Blyth*.
 Rang-runt, . . KANAWAR. | Rang-duni, . . KANAWAR.
 Himalaya.

L. curzonie, *Hodgson*, Sikkim, Tibet.
 L. rufescens, *Gray*, N. and Central Asia, Afghanistan.

ORDER, UNGULATA, Hoofed Mammals, the Pachydermata and Ruminantia of Cuvier.

TRIBE, PROBOSCIDEA, *Cuvier*.

Fam. Elephantidae.

Elophas Indicus, *Cuvier, Blyth, Elliot*.
 E. Asiaticus, *Blumenbach*. | Yemu, . . . GONDI.
 Ani, CAN., MAL., TAM., TEL. | Hathi, . . . HIND.
 Indian elephant, forest parts of all India.
 E. Sumatranus, *Schl.*, Sumatra.
 E. Africanus, *Schl.*, Africa.

TRIBE, PERISSODACTYLA, *Owen*.

Fam. Rhinocerotidae, Nasicornia, Ill.

Rhinoceros Indicus, *Cuvier, Blyth*.
 R. unicornis, *Linn.* | R. incermis, *Less.*
 R. Asiaticus, *Blum.*
 Gonda, Genda, . . HIND. | Ganda, Gendra, . . HIND.
 Great Indian rhinoceros of the Terai, from Bhutan to
 Nepal, Assam, and Bhutan Doar.
 R. Sondaicus, *Mull., Blyth* (R. Javanicus, *F. Cuvier*,
Horsfield), lesser Indian rhinoceros, of the Sunder-
 bans, Mahanadi river, Rajmahal Hills to Burma,
 Malaya, Borneo, Java, Assam, Arakan, Sumatra,
 Chin-India.
 R. Sumatranus, *Mull., Blyth*, two-horned rhinoceros of
 Assam, Sumatra.
 R. Crossii, *Gray?* Qu. R. Sumatranus? *Mull.*

Fam. Hyracidae.

TRIBE, LAMNUNGUA, *Wagner*.

Hyrax Syriacus, coney of Scripture, Palestine, Arabia.

Fam. Tapiridae, the Tapirs.

Tapirus Malayana, Malay Peninsula, S. Tenasserim.

Fam. Equidae, Horses, Asses, and Zebras, the Solidungula and Solipedes of authors.

Asinus, the ass, domesticated.

Equus onager, *Pall., Blyth, Cuvier*.
 E. hemionus of India. | Asinus Indicus, *Sclater*.
 Wild ass, . . . ENG. | Koulun, . . . KIRGHIZ.
 Gor-khar, . . . HIND. | Ghour, . . . PERS.
 Cutch, Gujerat, Bikanir, Jeysulmir, Sind, west of the
 Indus, Baluchistan, Persia, Turkestan.

E. hemippus, *Is. Geoff.*
 Asinus teniopus, *Hewg.* | E. asinus of the ancients.
 Wild ass of Scripture. | Onager of the ancients.
 Syria, Mesopotamia, N. Arabia, west of the onager.
 Wild horse of Col. Chesney.

E. homionus, *Pallas*.
 Kiang, Dzighal, . . TIB. | Wild horse, *Cunning*.
 Tibet and Central Asia.

ARTIODACTYLA, *Owen*.

TRIBE, CERVIDA, *Bly.*, the Pig and Hippopotami.

Fam. Suidae, Pig.

Sus Indicus, *Schinz*, Indian wild boar.
 S. cristatus, *Wagm.* | S. scropha, *Linn., Bly.,*
 S. vittatus, *Schl.* | Ell.

Kis, . . . BHAGULFUR. | Sur, . . . HIND.
 Handi, . . . CAN. | Bura janwar, . . .
 Mikka, Jewadi, . . . " | Dukar, . . . MAHR.
 Paddi, . . GONDI., MAHR. | Pandi, . . . TEL.
 Ceylon, all India, up to 12,000 feet.

S. Bengalensis, *Bly.*, and S. Neilgherriensis, *Gray*, Qu.
vara. of S. Indicus, *Schinz*.
 S. Malayannus, *Blyth*, Tenasserim.
 S. Zeylanensis, *Blyth*, Ceylon.
 S. Andamanensis, *Blyth*, Andamans.
 S. babirussa, *Blyth*, Babyroussa, Malaya.
 S. Papuensis, *Blyth*, New Guinea.
 S. larvatus, Africa, Madagascar.

Porculia sylvania, *Hodg., Horsf.*, pigmy hog.
 Chota sur, . . HIND. | Sano-banel, . . NEPAL.
 Nepal and Sikkim Terai, Assam, Bhutan.

TRIBE, RUMINANTIA, Ruminating Animals, camels, deer, horned cattle, sheep, in three groups.

1st Group, Camelidae, Camels, Akerata, *Bly.*

Camelus dromedarius, *Linn.*, the dromedary or one-humped camel of N. Africa, Arabia, India.

C. Bactrianus, *Linn.*, the Bactrian or two-humped camel of Central Asia.

2d Group. *Fam. Camelopardidae, Camelopards.*

Camelopardus giraffa, *Linn.*, the camelopard or giraffe of Africa.

3d Group. *Fam. Cervidae, the Deer tribe.*

Sub Fam. Cervinae, True Stags.

Cervus Wallichii, *Cuv., Bly., F. Cuv.*
 C. pygargus, *Hartw.* | C. elaphus of Asia, *Pallas*.
 C. Caspianus, *Falconer*. | C. naryanus, *Hodgs.*
 C. Kashmirensis, *Fal.*
 Kashmir stag, . . ENG. | Hangul, Honglu, . . KASH.
 Bara-singha, . . HIND. | Maral, . . . PERM.
 Euxine Sea, Western and Central Asia, Persia,
 Caucasus, Altai mountains, Lake Baikal, Kashmir
 up to 9000 and 12,000 feet, Western and Central
 Asia, Black Sea. Approaches the red deer of
 Europe.

C. rusa, *S. Muller* (Rusa tunau, *Vigors*), Sumatra.
 C. affinis, *Hodg., Bly.*
 Alain of Atkinson. | Irbisoh, . . . SIBERIA.
 Sikkim stag, . . ENG. | Shou, Sia, . . . TIB.
 Eastern Tibet, Chumbi valley in Sikkim. The great
 stag of N. China.

C. Moluccensis, *S. Muller*, Moluccas.

C. sika, *Schlegel*, Japan.

C. peronin, *Gray*, Timor.

C. Manchuricus, *Swinh.*, Manchuria.

C. taiouanus, *Swinh.*, Formosa.

Sub-Fam. Rusingae, includes the swamp deer, the sambur, spotted deer, and kakur or muntjac, all peculiar to tropical Asia and its Archipelago.

Rucervus duvaucelli, *Jerdon*, swamp deer.

C. elaphoides, *Hodgs.* | C. euryceros, *Knowsley*.

C. bahraiya, *Hodgs.*

Goen, goenjak, . C. INDIA. | Jhin-kar, KYARDA DOON.

Gaoni (female), . . " | Potiya-harn, MONGHIE.

Maha, . . . HIMALAYA. | Baraya, . . NEPAL TERAI.

Bara-singha, . . HIND.

Bengal, Oudh, Central India, forests at foot of Himalaya, Assam, islands of Brahmaputra, or Eastern Sanderbans, Midnapur, Assam, Nerbadda, Nagpur, Gumsur.

Panolia eldi, *Guth., Blyth*.

Cervus frontalis, *M'Clell.* | C. dimorphe, *Hodg.*

Burmese deer, or brow-antlered deer of Burma and Nepal.

Rusa dimorpha, *Gray?*

Tha-min, Te-min, . BURM. | Ghos? Seving? . HIND.

Ghour? Sing-nai, . HIND.

Nepal, Munnepur, Burma, Siam.

R. Aristotelis, *Jerdon*, sambur stag.

Cervus hippelaphus, C. | C. jarai, *Hodg.*

C. equinus, *Cuv.* | C. heteroceros, *Hodg.*

C. Leachensaultii, *Cuv.* | C. saumur, *Ogilby*.

C. niger, *Blain*.

Ghous, Gaoj, . . . BENG.	Sambar, . . . HIND., MAHR.
Bhalongi (female), . . . "	Meru, TEL.
Kadavi, Kadaba, . . . CAN.	Kannadi, TEL.
Ma-ro, GONDI.	Maba, TERAI.
Jarai, Jorao, HIM.	

All India forests up to 10,000 feet. Ceylon, Assam, Burma, Malay Peninsula.

<i>Axis maculatus</i> , Gray, <i>Hly.</i> , <i>Cuv.</i> , spotted deer.	<i>Axis major</i> , Hodgson.
<i>Cervus axis</i> , <i>Erzleben</i> .	<i>A. medius</i> , Hodgson.
<i>C. nudipalpebra</i> , <i>Ogilby</i> .	
Boro-khotiya, . . . BENG.	Buri, GORAKHPUR.
Chatidah, . . . BHAGULPUR.	Chital, Chitra, . . . HIND.
Saraga, CAN.	Chitri, Jhank (male), . . . "
Lupi, GONDI.	Dupi, TEL.

Two kinds are known, the larger in E. and W. Ghats, Panjab, Central India; smaller in Malabar, Ceylon? Neigherries.

A. oryzus, *Kcl.*! (*C. medius*, *Hodg.*), Ceylon spotted deer.

A. porcinus, *Jerdon*, hog-deer.

Cervus oryzus, *Kcl.*, *Bl.* *C. niger*, *Buch. Ham.*

C. dodur, *Royle*.

Nuthrini harn, . . . BENG. Khar laguna, . . . NEPAL.

Para, HIND. Sugoria, "

Bengal to Panjab, Assam, Sylhet, Burma, Central India rare, Malabar.

Cervulus aureus, *Ham.*, *Sm.*, rib-faced or barking deer.

C. vaginalis, *Boddard*, *Ogilby*.

C. ratwa, *Hodgs.* *C. moschatus*, *Bl.*, *Hors.*

C. styloceros, *Ogilby*, *Royle*.

Maya, BENG. Kakur, HIND.

Karsiar, BHOT. Siku, Sikku, Suku, *LEPCH.*

Kan-kuri, CAN. Jungle sheep of MADRAS.

Red hog-deer, . . . CEYLON. Bekra, Bekur, . . . MAHR.

Jangli bakra, . . . DUKH. Ratwa, NEPAL.

Gutra, Gutri, . . . GONDI. Kuka-gori, TEL.

All forests and jungles of India.

C. vaginalis, *Sclater*, Java, Sumatra?

C. Reevesii, *Ogilby*, China.

Fam. Moschidae, the Musk Deer.

Moschus moschiferus, *Linn.*, *Bly.*, musk deer.

M. saturatus, *Hodgs.* *M. leucogaster*, *Hodgs.*

M. chrysogaster, *Hodgs.*

Kastura, Kasture, . . . HIND. Rib-jo, LADAKH.

Bona, KANAWAR. La, Lawa, TIB.

Rous or Roos, . . . KASH.

Himalaya, at great elevations.

Fam. Tragulidae.

Tragulus kanchil, Malayana.

Meminna indica, *Jerd.*, moose-deer.

Moschus meminna, *Erzleben*, *Elliot*.

Moschiola mimenoides, *Hodg.*

Jitri haran, BENG. Mirgi, MAHR.

Pisuri, Pisai, HIND., MAHR. Kur-pandi, TEL.

Pisora, " Gandwa, UBIYA.

Yar, KOL.

Central India.

Fam. Bovidae.

Sub-Fam. Antilopinae, Antelopes.

Sub-Fam. Tragelaphinae, *Blyth*, Bush Antelopes.

Portax pictus, *Jerdon*, Nil-gai.

Hippelaphus of Aristotle. *Damalis risia*, *H. Smith*, *Elliot*.

Antelope tragocamelus, *Pallas*, *Blyth*.

A. pictus, *Pall.* *Tragelaphus hippelaphus*, *Ogilby*.

Maravi, CAN. Roz, Rojh, HIND., MAHR.

Gurayi, Guriya, . . . GONDI. Rui, "

Nil, Li, HIND. Manu-potu, TEL.

All India, but rare in extreme north and south.

Tetracerus quadricornis, *Jerdon*, four-horned antelope.

Antelope chikara, *Hard.* *A. sub-quadricornutus*, *Elliot*.

T. striaticornis, *Leach*. *H. quadricornis*, *Bly.*

T. iodes, *Hodgs.*

T. paccerois, *Hodgs.*

Kotri, BASTAB. Chouka, HIND.

Bhirul, BHIL. Chou-singha, "

Kondguri, CAN. Bekra, MAHR.

Jangli bakra, . . . DUKH. Bhirul, SAUGOR.

Kurus, GONDI. Konda-gori, TEL.

Bhir-kuru, Bhir, "

All India, not Ceylon, nor Burma. nor valley of the Ganges.

Antelope bezoartica, *Jerdon*, Indian antelope.

A. cervicapra, *Pall.*, *Ell.*, *Hartw.*, *F. Cuv.*

Alali (m.), BAORI. Kalwit (black buck), HIND.

Gandoli (f.), " Mirga, HIND., SANSK.

Kalsar (m.), BEHAR. Phandaynat, MAHR.

Baoti (f.), " Barout, Sasin, NEPAL.

Burota, BHAGULPUR. Irri (m.), Ledi (f.), . . . TEL.

Chigri, CAN. Jinka, "

Harn, Harna (m.), . . . HIND. Guria, Gorla, TIBHUT.

Harnin (f.), "

All India.

Gazella Bennettii, *Jerdon*, ravine deer.

Antelope Arabica, *Ell.* *A. hazenna*, *Is. Geoff.*, *Jacq.*

A. dorcas, var., *Sunder.* *A. Christii*? *Gray.*

A. Bennettii, *Sykes.*

Porsya (m.), Chari, BAORI. Kal-punch, HIND.

Tiska, Budari, CAN. Kal-sipi, MAHR.

Mudari, " Burudu-jinka, TEL.

Ohikara, HIND.

The goat antelope or Indian gazelle of all India.

G. subgutturosa? Baluchistan, Sind, Panjab, Persia, Afghanistan.

G. dorcas, *Blyth.*

Antelope Arabica, *Bly.* *G. corinna*, *H. Smith.*

Gazella cora, *H. Smith.* *A. dorcas*, var. *Persica*, *Ruppell.*

G. kevcilla, *H. Smith.*

Arabia.

Kemas Hodgsonii, Chiru of Tibet, the Kemas of Aelian.

Procacra picticaudata, *Hodg.*, the goa and ra-goa of Tibet.

P. gutturosa, *Auctorum* (Antelope gutturosa, *Pallas*), Central Asia, China.

Saiga Tartarica, *Saiga* antelope, of Eastern Europe, Tartary, Central Asia.

Sub-Fam. Caprinae, Goats and Sheep.

1st Capricorns or Antelope Goat or Mountain Antelope.

Nemorhædus bubalina, *Jerd.*, the scrow forest goat.

Antelope thar, *Hodg.* *N. proclivus*, *Hodg.*

A. bubalina, *Hodg.*

Sarao, Seron, HIMALAYA. Thar, NEPAL.

Sarraowa, " Eimu, SUTLEJ.

Ramu, KASH.

Central Himalaya, from 6000 to 12,000 feet.

N. goral, *Jerd.*, goral or Himalayan chamois.

A. Duvauceli, *H. Smith.*

Ra-giyu, BHOT. Suh-ging, LEPCH.

Gural, HIMALAYA. Sah, Sarr, SUTLEJ.

Pijur, KASH.

Gural, Himalayan chamois; all the Himalaya at 3000 to 8000 feet.

N. crispus, Japan.

Sub-Fam. True Goats.

Hemitragus jemlaicus, *Hodgs.*, the tehr or Himalayan wild goat.

Capra jharal, *Hodgs.* *Hemitragus quadrimammia*, *Hodgs.*

Tare, Tehr, Tahir, HIND. Kart, KULU.

Kras, Jagla, KASH. Jharal, NEPAL.

Jhula, Thar, KANAWAR. Jehr, SIMLA.

Tharni, " Esbu, Esbi, SUTLEJ.

All the Himalayas.

H. hylocius, *Jerd.*, Neigherry wild goat, ibex.

Capra warrayato, *Gray*, *Kemas*, *Ogilby*, *Blyth*.

Ibex of . . . NEIGHERRIES. Warri-atu, TAM.

Warra-adu, TAM.

Neigherry, Animallay, and neighbouring hills S. to Comorin.

Capra megaceros, *Hutt.*, *Bly.*, the markhor.

C. Falconeri, *Hugel.*

Mar-khor or snake-eater. Ra-pho che, . . . LADAKH.

Ra-che, LADAKH.

Pir Panjal, Hazara Hills, Wurdwan Hills, Sulimani Hills, Kashmir, Jhelum.

C. agagrus, *Gmelin*, Persia, Central and Western Asia.

C. Sibirica, *Meyer*, *Blyth*, Himalayan ibex.

C. sakeen, *Blyth.* *Ibex Himalayana*, *Blyth.*

C. Pallasii, *Schiffz.*

Skin, Skyin, . HIND., TIB. | Tangrol, . . . KULU.
Sakin, Iekin, " " | Bus, . . . SUTLEJ.
Kyl, . . . KASH. | Dan-mo (f.), . . TIB.

Throughout Himalaya.

Ovis cycloceros, *Hutt.*, *Slater*, *Blyth*.
O. *Vignei*, *Blyth*. | Panjab wild sheep.
Uria, Oorial, . . HIND. | Koch, Kuch, , SULIMANI.
Salt Range, Hazara, Peshawur.

O. *Vignei*, *Blyth* (O. *montana*, *Cunningham*).
Sha, . . . LADAKH. | Sha-pao, . . . , TIB.
Hindu Kush, Pamir Range, Ladakh.

O. *nahoor*, *Hodg.*, *Blyth*, *burhel*.
O. *nahoor*, *Hodg.* | O. *burhel*, *Hodg.*

Burhol, blue wild sheep. | Wa, War, H. of SUTLEJ.
Bharal, . . . HIND. | Na, Sna, . LADAKH, TIB.
Menda (m.), . . . Nervati, . . . NEPAL.

Bharur, HIND. of HIMAL. |
Sikkim, Bhutan to near Simla, Kamaon, Garhwal.
O. *ammon*, *Linn.*, gnaw of Tibet.
O. *argali*, *Pallas*. | O. *Hodgsonii*, *Blyth*.

O. *ammonoides*, *Hodg.* |
Hyan, Nuan, Nyan, . TIB. | Niar, Nyund, . . . TIB.
The Tibet side of Central Asia above 15,000 feet.

O. *Polii*, *Blyth*, the rnas or roosch of the steppe of
Pamir, east of Bokhara, 10,000 feet.

O. *nivicola*, *Eschscholtz*, Kamtschatka.
O. *Gmelini*, *Blyth*, Armenia.
O. *cylindricus*, *Blyth*, Caucasus.

Sub-Fam. Bovinae.

Gavæus gaurus, *Jerd.*, gaur, bison.
Bibos cavifrons, *Hodg.*, | Bos gour, *Travill*.
Ell. | B. assel, *Horsf.*

Vana-go, Ban-gau, BENG. | Gaoiya, . . . MAHR.
Kar-kona, . . . CAN. | Ran-parra of . . MUNDLA.
Peru-mau, . . . GONDI. | Bod of . . . SEONI.
Gour, Gauri-gai, . HIND. | Katu yen, . . . TAM.

Jangli-khulga, . . .
Bison of Madras sportsmen. All the large forests of
India.

G. *frontalis*, gayal or mithun of the hilly tracts E. of
the Brahmaputra.

G. *sondaicus*, the ban-teng, is the Burmese wild cow of
Chittagong, Burma, Malayana.

Bubalus Arni, *Jerd.*, wild buffalo.
Bos *buffelus*, *Blyth*. | B. *bubalus*, *Auctor*.

Mung, . . . BHAGULPUR. | Arna (m.), HIND., MAHR.
Gera erumi, . . GONDI. | Arni (f.), " "
Jangli bhains, . . HIND.

Var. a. *Macrocerus*, *Hodg.*, Assam, Terai, Tirhut,
Central India, south to the Godavery, Ceylon.
Var. b. *Spirocerus*, *Hodg.*

ORDER, EDENTATA, the Tardigrada or Sloths, and the
Effodientia or Burrowers.

Fam. Manidae, Pangolins.

Manis pentadactyla, *Linn.*, *Blyth*.
Pholidotus indicus, *Gr.* | M. *brachyura*, *Erzleb*.
Manis crassicaudata, | M. *inticaudata*, *Illiger*.
Griff., *Ell.* | M. *inaurita*, *Hodgson*.
M. *Macroura*, *Desmarcst*. | *Pangolinus typus*, *Less.*

Shalma, . . . BAORI. | Bajra kapt, HIND., SANSK.
Keyot-mach, . . . BENG. | Armoi, . . . KOL.
Kat-pohu, . . . " | Kaulimah, . . . MAHR.
Ban-rohu, . . . DUKH. | Kowli-manjra, . . "
Sillu, Sal, Salu, . HIND. | Kassoli manjur, . . "
Sukun-khor, . . . " | Alangu, . . . MAL.
Bajar-kit, HIND., SANSK. | Alawa, . . . TEL.

Indian scaly ant-eater of all India.

Manis aurita, *Hodg.*, *Blyth*.
Sikkim scaly ant-eater. | M. *leucura*, *Hodg.*
Pholidotus Dalmani, *G.* | M. *Dalmani*, *Sunder*.
M. *Javanica*, *Bly*.
Himalaya, Burma, Java, Malayana.

—Royle, Ill. Him. Bot.; Elliot in Madras Journ.
of Science; Jerdon, Mammals, 1864; Wallace,
Malay Archipelago; Geographical Distribution,
i. p. 85; Blyth; Kelant; Tennent; The Upper
and Lower Amoor, p. 110.

MAMMATA BHATTA of Kashmir, author of
the Kavya Prakasa, a work on poetry and rhetoric.

MAMMEA AFRICANA. *Sab.* From Sierra
Leone and the Niger. Delicious tropical fruits.
M. Americana, the Mammee apple or wild apricot
of S. America, might be introduced into India.
The gum of the American Mammee is used to
destroy the chiggers (*Culex penetrans*) in the feet
of the Negroes.

MAMMET. This word, used by Shakespeare in
Romeo and Juliet,—

'A whining mammet in her fortunes tender,'

similarly to Spenser in his Faerie Queen,—

'And oftentimes by Termagaunt and Mahomed swore,'
was meant to apply to Mahomed, in an age when
Muhammadans were supposed to be idolaters.

MAMMOTH, *Elephas primigenius*, the mam-
moth. One was discovered in 1799 by a Tungus,
near Lake Oncoul in Siberia. It is surmised that
in the north the mammoth was covered with long
hair. They are extinct.—*Mangin*.

MAMMOTH TREE, or Wellingtonia (*Sequoia
gigantea*), of California. The Wellingtonia was
first found in the Sierra Nevada, at a spot called
Calaveras Grove, near the sources of the Stanis-
laus river, at nearly 4600 feet above the sea. It
occurs in other localities in the same region. The
Mariposa grove numbers about 400 trees, the
Fresno grove about 600. In the Calaveras or
Mammoth Tree Grove, most of the trees attain the
average height of 300 feet. A tree has been
described 450 feet in height, with a trunk 116
feet in circumference.

Dr. Bigelow describes a tree which had been
felled, which required five men twenty-two days to
perform the operation. After it was severed at
the stump, the same five men were occupied two
days in driving wedges with a battering-ram to
throw it out of its equilibrium sufficiently to make
it fall. It might be introduced into India.

MAMMOL. ARAB. Usage, custom. Imme-
morial custom is declared by Menu (i. pp. 108-110)
to be the root of all law. It is the vital spirit of
the Hindu system, and the immediate cause of the
permanence of their institutions.—*Elph.* p. 48.

MAMUN, son of Harun-ur-Rashid, was the
fourth khalif of the house of Abbas. He reigned
A.D. 813 to 833. He was the greatest of the
khalifs of Baghdad. In A.D. 814 he caused a
degree of the earth's surface to be measured on
the sandy plains of Mesopotamia, between Palmyra
and the Euphrates, by which 56-66 miles were
fixed as the equivalent of a degree of the earth's
circumference.—*Catafago*.

MAMUZAI, a branch of the Lashkarzai
Orakzai. Also a subdivision of the Razar division
of the Yusufzai plain. They rebelled during the
mutiny of 1857, and were subdued.

MAN. ARAB., HEB., HIND., TAM.

Maund, . . . ENG. | Manugu, . . . TEL.
Mannah, . . . HEB. | Mahana, . . . URIYA.

A measure of weight amongst the Hebrews,
and now in India, but varying in quantity accord-
ing to locality and the article weighed.

Bengal bazar man = 40 seers = 82 lbs.
" factory man = 74 lbs. 10 oz. 10⁶ grs.
Central India " = 20 "
Gujerat " = 40 " of less value.
Bombay " = 28 " avoirdupois.
Southern India " = 25 " "

Bengal man of 1833 = 87½ lbs. avoirdupois.
 Akbar's " = 34½ " "
 Mysore " = 163 " "
 Hebrew man or mannah = 13,125 grains or 1-14 lbs.

The man or maund weight, therefore, varies according to the article weighed. In the Panjab, villagers use a kucha man, which is only 13 to 20 seers, and the Lahori man is = 3 kucha maunds.

The man of the British Government is 82·6 lbs. In the time of the emperor Akbar, it is defined as 40 seers, each seer being 30 dam in weight. This gives 388,275 grains, about 55½ lbs.—*Wilson* ; *Powell*. See Weights and Measures.

MAN. ENG., GOTHIC.

Rajal, ARAB.	Vir, Homo, Homines, LAT.
Jin, Jan, Yan-nyang, CHIN.	Zeme, . . . LITHUANIAN.
Lang-fin,	Z'menes, . . . " "
Li, Mi, . . . DRAVIDIAN.	Orang, . . . MALAY.
Homme, FR.	Chelovyek, . . . RUS.
Mensch, Mann, . . . GER.	Manu, Manava, SANSK.
Manniks, GOTH.	Manusha, Manush, " "
zama, GR.	Manushya, . . . " "
Ish, HEB.	Hombre, SP.
Adam, . . . HEB., PERS.	Manushi, Amlam, . TAM.
Admi, Mard, . . . HIND.	Manushi, Vadu, . TEL.
Uomo, IT.	Adam, TURK.
Hito, JAP.	Zem, ZEND.

Man, a derivative root, means to think. From this we have the Sanskrit manu, originally thinker, then man. In the later Sanskrit we find derivatives, such as mānava, mānusha, manushya, all expressing man. In Gothic we find both man and mannisks, and in the modern German mann and mensch.

The question whether mankind consists of one or of several species, has of late years been much agitated by anthropologists, but those naturalists who admit the principle of evolution, though they may, for the sake of expressing their amount of difference, designate them as distinct species, nevertheless feel no doubt that all the races of man are descended from a single primitive stock. Virey held that there were six species or races; Jacquinot, three; Kant, four; Blumenbach, five; Buffon, six; Hunter, seven; Agassiz, eight; Pickering, eleven; Bory St. Vincent, fifteen; Deamoulin, sixteen; Morton, twenty-six; Crawford, sixty; and Burke, sixty-three.

Leibnitz and Lapece classified the human race into Europeans, Laplanders, Mongols, and Negroes; Linnæus into white, red, yellow, and black; Kant into white, copper-coloured, black, and olive-coloured races; Blumenbach into Caucasians, Ethiopians, Mongols, Americans, and Malays; Buffon into Northern (viz. Laplander), Tartarian, South Asiatic, black, European, and American races; Prichard into Iranians (also Indo-Atlantics or Caucasians), Turanians (Mongolians), Americans, Hottentots and Bushmen, Negroes, Papuans (or woolly-haired tribes of Polynesia), and Alfoursous (or Australians); and Pickering arranged them into whites, Mongolians, Malays, Indians, Negroes, Ethiopians, Abyssinians, Papuans, Negritos, Australians, and Hottentots.

Peschel, a recent writer, separates mankind into seven groups, races, sub-species, or species, viz. (1) the Australians and Tasmanians; (2) the Papuans of New Guinea and adjacent islands; (3) the Mongoloid nations, comprising the Asiatics of the continent, the Malayo-Polynesian, and the aborigines of America; (4) the Dravida of Western India of non-Aryan origin; (5) the Hottentots and Bushmen; (6) the Negroes; (7)

the Mediterranean nations answering to the Caucasians of Blumenbach.

But although the existing races of man differ in many respects, as in colour, hair, shape of skull, proportions of the body, yet if their whole organizations be taken into consideration, they are found to resemble each other in a multitude of points. Europeans and the bulk of the Hindus belong to the same Aryan stock, and speak a language fundamentally the same, but they differ widely in appearance, which is supposed by Broca to have arisen through the Aryan branches having, during their wide diffusion, been largely crossed by various indigenous tribes. In the East Indies, where, amongst Hindus, the system of caste prevails and keeps each sub-species distinct, the Scythic Jat, the Rajput, the Brahman, the Turanian, and Helot races are seen to vary, from the black squat tribes of the mountains to the tall olive-coloured Brahman, with his intellectual brow, calm eyes, high but narrow head; and in the Further Indies, the Burman, the Malay, the Negrito or Negro, and Papuan are all at once distinguishable. Amongst Indian Muhammadans, too, as obtained from Arabia, Persia, and Scythia, and converts from Hinduism, where they have not intermarried, the distinctions are very marked.

Man was long supposed to have existed in the earth since about 6000 years, but it is now believed that he has existed from an incomparably greater period. The world appears as if it had long been preparing for the advent of man. At the present day, even the most distant races of man, with the exception of some Negro tribes, are much more like each other than is generally supposed. In India, a newly-arrived European cannot at first distinguish the various native races, though they soon appear to him extremely dissimilar; and the natives of India cannot at first perceive any difference between the men of several European nations. There are, however, marked distinctions. The Mongolian, the Negro, the Australian, and the Hottentot differ in a multitude of characters, some of slight, some of considerable importance, and are undoubtedly distinct species of the family of man, the Negroes of the present day being of the same form as those of 4000 years ago. The Malays and Papuans who live under the same physical conditions, differ greatly. The different races of man are distributed over the world in the same zoological provinces as those inhabited by distinct species and genera of mammals. This is manifestly the case with the Australian, Mongolian, and Negro races of man; in a less marked manner with the Hottentots, but plainly with the Papuans and Malays, who are separated by nearly the same line which divides the great Malayan and Australian provinces. The different species, however, mingle together and produce progeny with mixed characters. In Brazil is an immense mongrel population of Negroes and Portuguese. In Chili and other parts of South America, the whole population consists of Indians and Spaniards blended in various degrees, and with complex crosses of Negroes, Indians, and Europeans. Capt. Burton observes that the mixture of French with Indian blood produces a favourable progeny, but that the offspring of the Portuguese and of natives of the East Indies is coarse and dark-coloured. In S. America, on the contrary, the

offspring of the Portuguese and Indians are often fairer and never darker than that of the Indian. In one island of the Pacific is a small population of mingled Polynesian and English blood; and in the Viti Archipelago is a population of Polynesians and Negritos crossed in all degrees.

There are great differences in the physical structure of the races. As to height, the smallest among the peoples measured by Dr. A. Weisbach are the Hottentots (1286 millimetres). This is far behind any other people, as the next, the Tagals, are 1562. Then follow the Japanese (1669), the Amboinese (1594), Jews (1589), Zingani (1609), Australians (1617), Siamese (1622), Madurese (1628), South Chinese (1630), Nicobars (1631), Roumanians (1643), Sundanese (1646), Javanese (1657), Magyars (1658), Bugis (1661), North Slaves (1671), North Chinese (1675), and Congo Negroes (1676). The longest measurements, however, are found among the Sandwich Islanders and Kanaks (1700 millimetres), Kafirs (1753), and the Maoris of New Zealand (1757). To compare these with the stature of European peoples, we find that that of the English and Irish is 1690 millimetres; the Scotch, 1708; Swedes, 1700; Norwegians, 1728; Danes, 1685; Germans, 1680; French, 1667; Italians, 1668; and, lastly, Spaniards and Portuguese, 1658.

The mental characteristics of different races are markedly dissimilar. The old Aryans designated natural phenomena or the forces of nature according to the impressions made by these on their senses. They soon forgot the origin of these terms, which gave rise to endless myths. The Semites, on the contrary, gave to their gods names referring to abstract qualities, such as El, the Strong; Bel or Baal, the Lord; Bel-samin, the Lord of Heaven; Moloch, the King; Eliun, the Highest; Ram or Rimmon, the Exalted. These terms, at first adjectives, became nouns, and the Jews forgot the derivation, and worshipped El and Baal as separate deities. The Semites, however, had an inherent tendency to spiritualize all things.

With the Hindus as with the Romans, there are domestic ceremonies when their youths and girls grow up. The dhoti of the Hindu men is an unseamed cloth worn by men as a wrapper around the lower limbs. It is kept up to the waist by a waist-belt of cord or of gold or silver, and recalls the Roman cingulum. And, as in Rome, when the ceremony of changing the toga prætexta for the toga virilis was performed, the aurea bulla was taken from the boy's neck and consecrated to the domestic Lar, so in India, at the ceremony of investiture with the sacred thread, an identical ornament, a hollow hemisphere of gold, hung from a yellow cotton thread or chain of gold, is taken from the boy's neck, and the sacred cord, the symbol of his manhood, is put on him.—*Birdwood, Indian Arts; Report, Brit. Association; Darwin, Animals and Plants; Origin of Species; Bopp, Glossarium Sanskritum; Muller's Lectures; Peschel.*

MANA, a pass in Garhwal district, North-West Provinces, over the crest of the main Himalayan range, dividing British territory from the Chinese empire. Elevation of Mana village above sea-level, 10,492 feet; of the pass, 18,000 feet. In the Mana pass is the temple of Badarinath. The

people who occupy the Mana district are Bhotas, dwelling in the passes and their neighbourhood at heights above 8000 feet. The pass-men state that ridges which within the memory of man were covered with forest and pasture lands, are now covered with snow, showing the extension of the snow zone. The Niti pass on the Duli, a feeder of the Ganges, is the best, and the Juwar on the Gauri (Douli) pass, a feeder of the Sarda or Gogra, is the worst. Mana is on the Saraswati, and the Byans pass on the Kali.

The Bhot here, as elsewhere, is an agriculturist, and is assisted by slaves, who live under the roofs of their masters. The people in the Mana, Niti, Juwar, and Byans passes are supposed to be immigrants from Tibet who drove out an earlier body of occupants, and many of the chief families trace their origin to a Tibetan locality. The inhabitants of the Dharma pass are said to be a body of Mongols left in Kamaon by Timur. The Dharma inter their dead for a time, and in the month Kartik exhume and burn them, but the other pass-men burn their dead on their demise. The Dharma practise divination, taking their omens from the warm livers of sheep sacrificed for the purpose. The women of the Dharma and Byans passes dress alike, and these two clans eat the yak, and would eat the cow, while those of Mana, Niti, and Juwar abstain from beef of all kinds, and look down, as on an inferior caste, on the Dharma and Byans. The Juwar nearest India have the largest trade, and resort to an annual fair in September at Gartokh, the residence of the Lhasa viceroy. These passes are the roads from India to Nari or Gnari, Tibetan provinces of the Chinese empire. Immediately below the village of Mana is the Hindu shrine of Badarinath, dedicated to an incarnation of Vishnu, and one of the most sacred Hindu temples. The temple is built on the bank of the Bishen Ganga, immediately over the site of a hot spring, the existence of which no doubt led to the original selection of this remote spot. The rawal, or chief priest, is invariably a Namburi Brahman from Malabar, no other class of Brahman being allowed to touch the idol.—*Cunningham's Ladakh; Latham's Ethn.*

MANA. HIND. A platform erected in tall crops; on these people sit to frighten off birds, etc.

MANA or Manike. TEL. A measure of capacity in Telingana, 8 or 16 to a tum or t'hum.

MANAAR ISLAND, in the Gulf of Manaar, a dreary sandy waste, 14 miles long and 3½ broad. The town is in lat. 8° 59' N., and long. 79° 58' 20" E. Manaar, according to Sir J. E. Tennent (ii. p. 555), is the island of Epidorus, which, according to the Periplus, was the seat of the pearl fishery. Manaar Gulf, separating Ceylon from the Peninsula of India, is so named from the island of Manaar near Ceylon, which, with that of Ramisseram near the continent, almost connect Ceylon to the Peninsula, the two islands receiving the name of Adam's Bridge. The gulf passage was deepened by a series of engineering operations.

MANAI. TAM. A ground, a land measure. At Madras, 24 manai, each of 2400 square feet, is the standard cawnee.

MANAK or Manik. HIND. A ruby; also any gem or precious stone.

MANAKARI, families in the Mahratta country who claim to be of Rajput descent.

MANAKHYALA, a town in Afghanistan. A

tope there was opened by General Ventura in April and May 1830.

MANAMADOO, in the district of Trichinopoly, makes cloth very superior in quality, and used as clothing under the name of Manamadoo Sullah. That at Arnee, in the district of Chingleput, is known as Arnee Sullah.

MANANTODDY, Manantadi, or Manantawadi, a town in Malabar district, Madras, in lat. $11^{\circ} 48'$ N., and long. $76^{\circ} 2' 55''$ E. Population (1871), 10,959.—*Imp. Gaz.*

MANAS, a river of Assam, which takes its rise far up in the Bhutan Hills, and flows south into the Brahmaputra. It enters the Brahmaputra in lat. $26^{\circ} 15'$ N., and long. $90^{\circ} 41'$ E., just opposite Goalpara town.—*Imp. Gaz.*

MANAS, an encyclopædical collection of all the Kirghiz mythological tales and traditions, brought down to the present period, and grouped round one person,—the giant Manas. Another epos, the Samyatei, serves as a continuation of the Manas, and is the Burut Odyssey.

MANASA, in Hindu mythology, the snake goddess. She is worshipped as a preservative against the bite of these reptiles, and is represented sitting on a water-lily environed with snakes. If a Hindu be bitten by one, incantations are pronounced to propitiate the favour of Manasa.—*Cole. p. 338.*

MANASA BUL, one of the most beautiful tarns in Kashmir. On its banks are the remains of the once noble palace and gardens of the famous Nur Jahan. The clearness of the water and the grandeur of the mountain scenery towards, render this a most perfect little picture of Kashmir beauty.—*Adams.*

MANASA-PUTRA, the seven (or ten) mind-born sons of Brahma, also known as the Prajapati. Manasi, *SANSK.*, spiritual.

MANASAROWARA, properly Manasa-sarovara, a lake in Tibetan territory beyond the great southern wall of the Himalayas, in about lat. $30^{\circ} 8'$ N., and long. $81^{\circ} 53'$ E. The lake lies to the south of the Kailas mountain, and, like that celebrated peak, occupies an important place in Hindu mythology. No river flows from the Manasarowara lake. Close to it is another lake, Ravana-hrnda, from which the Sutlej flows. The Kailas mountain forms a great water-parting to the north of the southern range of the Himalaya. The Indus starts eastward from its northern slope; the Sutlej takes off to the south-west from its southern side, and the Tsan-pu or Brahmaputra flows eastwards from its eastern base. The Manasarowara formed a beautiful feature of the elysium of the Hindus, or Siva's paradise, on the Kailas mountain. It is one of the four lakes of which the gods drink.—*Imp. Gaz.*

MANATAIPAN, a caste of cultivators originally from Coimbatore, first settled in Palghat, and intermixed and often confounded with the Nairs.—*Wilson.*

MANAVA DHARMA SUTRA, the code of Menu; Menu's book on the Vedic rites; part of it has been published by Goldstucker.—*Dowson.*

MANAVALA, the head of the Tengala Vaishnava sect of the south of India.

MANBHIOU, dissenters from Hinduism in Berar and the Dekhan. They wear a black dress, and are of quiet, inoffensive manners. These Hindu religious sectaries are worshippers of

Krishna, and about the year 1830 were described by Captain Mackintosh. They are under a vow of celibacy, and elect young people into their order; but there are errors, and if pregnancy occur, the parties are allowed to withdraw. The sect was formed by Krishna Bhat. Their chief locality is in the country between the Syhadri Hills and the east Gond country on the east of Berar, and between the Kistna river and Malwa. A few are to be found in the Panjab. They dwell in mat'hs, the chief mat'h being at Rudpur, near Ellichpur, Umarker. They resemble in their relations some of the Christian monks. They are believers in Krishna, as his life is detailed in the Bhagavat Purana, and they reject all other Hindu Shastra, and do not worship other Hindu gods.—*Capt. Mackintosh, M. J. L. and S., 1836.*

MANBHUM, a British district of Chutia Nagpur, which has numerous remains of Aryan colonization close to its southern and eastern approaches, but none on the plateau itself. The most numerous aboriginal tribes are those of the Santals, the Bhumij Kols, the Bhars and Rajbhars. Amongst the semi-Hinduized aborigines are the Bauri and the Bhuiya. The Bhumij Kol are the characteristic aboriginal race of Manbhum, as the Ho are of Singbhum, and the Munda and Oraon of Lohardaga. Colonel Dalton, in his *Ethnology of Bengal*, describes them as being located in the country between the Kasi and Subarnarekha rivers. They had once large settlements to the north of the former river, but they were dislodged by Aryans, who, as Hindus of the Kurmi caste, now occupy their old village sites. The Bhumij Kol of Western Manbhum are pure Munda. Manbhum and Purulia have surface coal.—*Dalton, p. 63; Imp. Gaz.*

MAN-CHANG, a minor deity of the Chinese pantheon, who is worshipped by collegians and school-boys. He is supposed to record their names in a note-book. He was famous for his great literary attainments and love of virtue. His most important temple is at Chu-toong-yu-ne.—*Gray, p. 144.*

MANCHE. CAN. A boat or ship. The *Calicut manche* is a boat very similar to that of Mangalore, with the exception only of a raking stem, for the purpose of taking the beach, as the port of Calicut is open to the coast and there is no river. These boats are propelled by the paddle and sail, and generally carry eight men. They are much employed in watering and completing the sea-stock of ships homeward bound; also in loading ships with pepper, timber, etc., from Bombay; and in shipping the produce of the forests of Camra and Malabar, all of which is rafted off to vessels called dow, boatile, patamar, etc.

The *Panyani manche* is a coasting boat of about 50 feet long, 10 to 12 feet broad, and 5 to 7 feet deep. It is framed with timbers and planks, which are sewed together. The timbers are about 4 feet asunder, and on them, inside, some few planks are placed as bands and clamps, which are nailed to the frame. These are very rudely put together, and not of much importance either in form or construction. During the south-west monsoon, or from June to November, they are laid up at Baipur river for safety, and are only used in the fine-weather season. They carry the coir husk of the coconut, from which rope is made; copra, the inside albumen of the nut,

from which oil is expressed; cajan, the leaf of the *Corypha umbraulifera* tree, which is used for thatching houses, also for books, and various other purposes; jagari sugar, made from the toddy or juice of the palm; oil and arrack, a strong spirit, distilled from the toddy taken from the palm. These vessels keep along shore, and take advantage of the sail in rowing. They have generally from eight to ten men, who are fishermen of the Moplah Muhammadans, descendants of Arabian settlers on the shores of the Peninsula, and who, marrying the daughters of the country, obtained the name of Mapillai, or sons-in-law, corrupted by Europeans into the above term.

The *Boutilla manche*, of the island of Ceylon, navigates the Gulf of Manaar and the coasts of the southern part of the Peninsula of India. This boat is about 50 to 60 feet in length, 16 to 18 feet in breadth, and 8 to 10 feet in depth, has more of the European form than any of the Indian-built vessels that are met with. The after part shows the construction to be of Portuguese origin, as it is very similar to that of many of the boats still in use by the people of that country, which are said to be of the same shape as the vessels in which Vasco da Gama sailed to India. They have a deck fore and aft, and are built with all sorts of jungle wood in a very rough manner, and fastened with nails and bolts. They are equipped with one mast, which inclines forward, and a square lug-sail; also a small bowsprit, at about the angle of 45°, with a sort of jib foresail, one pair of shrouds, and a backstay, which completes the rigging. These vessels carry on the trade of the island across the gulf.

Mangalore manche, of the western coast of the Peninsula, is a flat-bottomed boat of burden, about 25 to 35 feet long, 6 to 7 feet broad, and 4 to 5 feet deep. It is formed to meet the river, which is very shallow and flat; and to land the cargoes of the patamars, which are discharged and loaded at the mouth of the rivers. These boats are sewed together similar to the masulaboat and other native vessels; they are forced along by bamboo poles, as the water is not more than from 6 to 10 feet deep, except in the south-west monsoon, when the rapids swell, and the whole of the river is considered impassable; and at this period all the vessels are taken to the shore and laid up.—*Edge*.

MANCHHAR, a lake in the Sehwan subdivision, Kurachee district in Sind. A little north of Larkhana, on the right bank of the Indus, the Narrah or Snake River, a Sind Serpentine, falls into Lake Manchhar, flows through it, and issues from the southern extremity under a fresh name, the Aral. The Narrah and the Aral form a semicircle of about 60 miles from point to point. They are probably artificial, as their tortuous course presents the appearance of man's rather than Nature's doings. The country is so level that, when the Indus rises, the water flows up the Aral, and vice versa when the main stream falls.

At certain periods, when the Indus is higher than the lake, the current runs into it through numerous openings in the belt of alluvium between its bed and the lake.

The fisheries of the lake yield an annual revenue of about £170, the rule being that one-third of the fish caught becomes the property of Government. The principal fish are the pala, which

may be considered the finest in Sind, and the damthro (or theiri), a reddish-coloured fish, often attaining an enormous size.—*Burton's Scinde*, ii. p. 231: *Imp. Gaz.*

MANCHIL. HIND. A litter slung on a pole, with a top like a tilt, used in the Himalaya.

MANCHU, a race who, in A.D. 1644, became rulers in China. The original seat of the reigning Manchu Tartar dynasty is the north-east of China. The dynasty has given every encouragement to the Chinese forms of education, and has admitted the learned men of the Chinese to a share in the administration, while retaining the higher offices for the Manchu. The emperor has numerous titles, all indicating some attribute of virtue or greatness, besides the most commonly used one of Hwang-ti. The family name of the dynasty is Gioro or Golden, so called from its original founder, Aisin Gioro. All members of the blood are registered in the Clan Court. Those who are descended from an emperor have the privilege of wearing a yellow girdle; those from the Manchu chiefs before they had become Chinese sovereigns may only wear a red girdle. They all enjoy an allowance, but this is gradually reduced the further they recede from the throne, until at last it barely suffices to procure the necessities of life. There are four grand secretaries, but their power is very limited. They are called Ta-his-sze, and two of them are Manchus, and the others are Chinese. The senior post was always reserved for a Manchu, Li Hung Chang, about 1883, being the first Chinese to possess the pre-eminence. There are two under-secretaries—one Manchu and the other Chinese—with ten subordinates. Upon these sixteen officials devolves the work of placing all public matters before the emperor, and of receiving the answers which are to be sent forth as the official decisions. The fact of being a grand secretary does not prevent the official from holding other offices. The formation of the Grand Secretariat goes back to the first half of the 17th century, when the present dynasty was placed upon the throne, and the principal value of membership is that it gives social pre-eminence. The general council or Kiun-ki Chun was founded in 1730 by the emperor Yung-Ching. The members of this council rarely exceed four. They meet every morning in a chamber set apart for their deliberations in the interior of the palace.

Next to these come the six boards of administration, which have existed under slightly varying forms from a remote antiquity. The senior of these is that of Civil Office or the Li Pu. The work of this board is very heavy, and it is divided into four departments. The next in order of rank is the Board of Revenue or Hu Pu.

All girls of Manchu race, on attaining the age of twelve, ought to appear before the emperor for him to make selections for his harem, and the families that have personal objects of ambition to attain consider it highly desirable to obtain admission in this way for one of their members into the palace. The Board of Revenue is charged with the task of keeping and revising a complete list of the Manchu maidens. The next board, that of Rites, supervises all the ritual performances and court ceremonies. Its members possess great power and influence at a court where everything is decided in strict accordance with precedent as established by the Book of Rites. The Board of

War comes fourth, and all matters appertaining to either the army, or the navy come under its purview. The fifth board, that of Punishments, the Hing Pu, has power in both civil and criminal cases. The Court of Censors, in conjunction with the Board of Punishments, forms the highest judicial authority in the kingdom. The most onerous as well as the most dangerous duty which a censor has to perform is to remonstrate with the emperor for any acts that may seem unworthy of his rank and injurious to his reputation as a good and wise prince. The sixth and last of these boards is that of Works. It has the supreme direction of all public works throughout the realm. These include the state of the canals, the high-roads, and the rivers, in addition to that of the fortifications of the towns and of the arsenals; it provides the stores of the army, and attends to the sewers and the cleansing of the gutters of the capital.

The Tsungli Yamen department only came into existence in January 1861, for the transaction of business with the foreign ministers resident in the capital, whose sovereigns possessed by treaty the then novel position of admitted equality with the Chinese emperor. But from an early period a department called the Li Fan Yuen has transacted all business with the tributaries and other external states which held intercourse with China on a footing of distinct inferiority. This department is now usually termed the Colonial Office, the privilege of membership being reserved for Manchus and Mongols. This office superintends the whole of the arrangements for the management of the four divisions of Mongolia, as well as those with regard to the dual government maintained in Tibet.

The Hanlin Yuen is the Chinese academy. To be a member of the Hanlin is in itself the highest distinction, and alone qualifies a man for the highest posts in the state. The Hanlin doctors are employed in drawing up all important state papers, in the most elegant language and according to the most approved form. They also collect daily the records of the reign, which are duly placed in the historiographer's department, but which never see the light until the dynasty has ceased to reign, and has been superseded by another. The Pekin Gazette is brought out by officials answerable for its accuracy to the police authorities of the capital. There are sixteen forwarding stations at Pekin for the purpose of sending copies of the Gazette immediately on publication into the provinces.

It is computed that in Pekin alone there are not fewer than 20,000 officials employed in the public offices and departments. For the provincial service in the higher grades there are not more than 2000 persons employed in it above the rank of assistant district magistrate. Of these there are eight viceroys, or Tsung-tuhs or Chetais, who govern fifteen out of the eighteen provinces of China proper. Peh-chi-li and Sze-chuen are the only single provinces having viceroys. The six others are Kwang-tung and Kwang-si (the Liang or Two Kwang); Kiang-si, Kiang-su, and Anhwei (the Liang or Two Kiang); Foh-kien and Chekiang (Min Cheh); Yun-nan and Kwei-chu; Kan-su and Shen-si; and, lastly, Hu-peh and Ho-nan (Hou-kwang). In each of these provinces, with three exceptions, there is also a governor

or Futai, while the three provinces Shan-si, Honan, and Shan-tung are administered by officials of that grade. There were, therefore, fifteen governors serving either under viceroys or in independent command; but in 1877 Formosa was, after much deliberation, converted into a governorship, and placed under the 16th Futai. By usage the official entrusted with the control of the Yellow River is styled governor-general or viceroy, and although he has no territorial authority, it is clear that he holds an office of greater difficulty than even the administration of a province. A recent change in the form of government in Manchuria has also resulted in the addition of one to the ranks of the viceroys. When the Manchus established themselves in China they left the form of government in their own province practically undisturbed, and as it was formed on a military basis it was very much simpler than that in force among the Chinese. But at the same time, in order to sustain the national spirit, or gratify their own vanity, or possibly only to do honour to their ancestors, they declared Moukden or Sheng-king to be the twin capital of the empire, and that the great administrative boards of Pekin should have offices there as well as in the capital. The chief military officer was of the rank of Tsiang-kun, but it naturally followed that he and the civilians of the boards soon came into collision, and gradually his authority was enfeebled, if not absolutely superseded. This state of things led to a formal investigation, and in 1875 it was proposed that for the Tsiang-kun a Tsung-tuh or viceroy, having supreme direction of all questions within the three divisions of Manchuria, should be substituted, and the president of the commission of inquiry became the first viceroy of Sheng-king.

The city of Pekin has a government of its own, and is in no way dependent upon the viceroy of Peh-chi-li, in which province it is situated. It has a mayor or Furgin, who is, however, subordinate to a minister from the Board of Works duly appointed for the purpose. There are two distinct magistrates to assist in the regulation of a city, which, with what is believed to be a declining population, still contains a million human beings. The military officials are divided not less strictly than the civilian. The Ti-tuh is the highest, and of this rank there are only sixteen; but the Tsiang-kun, who commands the Manchu garrison in each of the larger cities, is perhaps the most powerful of them all. He is quite independent of all the civil Chinese authorities, and only reports to the captain-general of his banner at Pekin. In the same way the general-in-chief of the Pekin field force, who is usually a Tartar of high birth and position, is only answerable to the throne itself.

The number of Manchu troops is estimated at 60,000 men. They are habitually under arms, and are assiduously exercised in their profession. The Government watches over them with great anxiety, for the emperor has a strong interest in not allowing these troops to stagnate in inaction. He takes care that they shall preserve something at least of the warlike character to which they owe their conquest of the empire. A Manchu is under obligation to enrol himself under some banner, and, failing to do so, loses his privileges. Many neglect to enrol themselves voluntarily in

order to avoid the conscription. The Manchu, who are still (1884) ruling, obtained possession of the kingdom in 1643. Their founder was Shun-shi, and the dynasty is styled Tsing, or pure. They have placed Tartar garrisons in all the principal towns. His son Kang-hi, an able administrator, reigned from A.D. 1661 for 61 years. The people had previously made several important canals, but Kang-hi excavated the grand canal which connects the inland navigation of the great river with Peking to the north, and with Ningpo to the south. Early in the 18th century, Kwei-chow broke out in rebellion, but it was suppressed; subsequently dominion over Tibet was acquired, and in the beginning of the 19th century Nepal was made tributary.

The Manchu dynasty has four times been at war with European powers, viz. with Great Britain 1840-42, Great Britain and France 1859-60, and France 1884. China proper is arranged into 18 provinces, 15 under viceroys and 3 under governors, and these deputies or the rulers long strove to prevent British ambassadors having personal interviews with the sovereign. The viceroys were all in practice autonomous. But about A.D. 1858 the Imperial Customs department was placed under Europeans, and has been a recognition of the supreme authority. Insisting upon the responsibility of the emperor, and refusing to treat with subordinate or provincial officers, though at first deemed most obnoxious to its pride, has nevertheless afforded the most efficient support to the administrative rights of the Imperial Government.

The Manchu is the most vocalic of the Tartar languages. It approaches to the Korean, but has other special vocalic affinities to the Japanese.—*Mr. Rowland Hamilton.*

MANCHURIA lies within lat. 39° and 49° N., and long. 120° and 133° E., and measures approximately 800 miles in length, and 500 miles in breadth. It is bounded on the south by the Gulf of Peh-chi-li and the highlands of Corea, on the east by the river Usuri, which divides it from Russian territory, on the north by the Amur, and on the west by the rivers Naun, Sungari, and the South-West Palisades. It is divided into three provinces, viz. Liau-tung or Southern. Kirin or Central, and Tsi-tsi-har, the Northern Provinces. The climate presents the extremes of heat and cold. The Liau-Ho and Ta-yang-Ho, Sungari, Harka, Usuri are the only important rivers. The population numbers about fourteen millions, Manchu, Tartars, and Chinese.

In 1859-60, Russia's representative at Peking, General Ignatieff, obtained the surrender to Russia of the maritime province of Manchuria, the value of which had been discovered at the time of the Crimean war, and the Russian frontier was accordingly advanced to the close vicinity of Corea and the important city of Moukden.

Manchuria for ages past has swarmed off masses of humanity into other lands, and at present her millions are pressing on her neighbours for room. Researches have made it more than probable that the Tartar, Manchu, and Tungus belong to one great stock; that the Turkoman, as well as the Tshude, Fin, Laplander, and Magyar (Hungarians), present another stock closely united, and that both these families are originally connected with each other. They sit upon the throne of

Byzantium, and upon that of China. Manchu Tartars of Manchuria are the bravest of the Mongol race. Much of Manchuria is now Chinese, and the Chinese language has been introduced. Manchu Tartars are strongly made and active; they are fond of the chase, and use the rifle and wolf-dogs. They dress like the Chinese, but wear long hair parted down the middle. The women have a loose jacket close round the neck, and reaching to the waist, where it is fastened with loops on the right side. A bright red petticoat reaches half-way below the knee. They have silver ear-rings, wear bracelets of brass and white metal, and they wear their hair with two long tails separated by a leathern band, edged with blue beads and a central line of cowries and brass beads below it.

The Manchu forbid marriage between those whose family names are different. In this respect they differ altogether from the Chinese and Brahmans, who abstain from marrying into families with their own race name. The Manchu and the Coreans have legends relating immaculate conceptions. Mr. Meadows and Mr. Griffis (p. 155) relate a Manchu legend of three heaven-born virgins who dwelt near the Great White Mountains. As they were bathing in a lake a magpie dropped a blood-red fruit on the clothes of the youngest. This the maiden naturally ate, and forthwith conceived, and she bore a son, whom they named Ai-sin-Gioro, or Golden Family Stem, which is the family name of the emperors of China.

The Fuyu are the aboriginal race of Corea. They trace their descent from a waiting-maid of the king of To-li or Korai. One day, while her master was absent on a hunting expedition, she saw floating in the atmosphere a glistening vapour, which entered her bosom. This tiny cloud seemed as big as an egg. Under its influence she conceived, and bore a son, who became the king of the tribe and kingdom of Fuyu.—*Williamson; Griffis, Korea; Adams; Meadows.*

MAND, probably another name for the Med. There are several tribes,—the Mandar, Mandhor, Mindhra, the Baluch tribe of Mondrani; and the ancient towns of Mandra, Mandropat in Chach-gani, to the east of the Guni; Mandrasa, to the north of the Makali Hills; and Mundra and other similar names in Cutch.

MANDAKU or Manda chettu. TEL. A plant, the juice of which is said to prevent baldness.

MANDAL. ARAB. A form of divination in Egypt, which owed its celebrity in Europe to Mr. Lane. In the mandal, or palm-divination, a black slave was considered the best subject. When Lane wrote his account of this jugglery, he was unaware that Osman was a confederate of the supposed magician, and supplied him with the necessary hints. When Osman died, the Maghrabin magician said all had gone wrong since Osman Effendi departed. Three travellers had a seance in 1836, resulting in blunder after blunder, until they got disgusted and left. On that occasion, amongst others, an absent person was named, and was described by the magician as a tall Frank, with black hair, a long black beard, and one eye gone,—he being fair-haired, with eyes still (1884) perfect.—*Lane; Burton, Mecca.*

MANDAL. GUJ. A close-woven silk and gold fabric, used to form the rope-like turbands.

MANDALA. HIND. A circle, a district, a division

of a country, a region, as Tonda Mandalam, Pandu Mandalam, Chola Mandalam, Mandalaistr, and Okamandal. Also an orb; also a section of a book. The Rig Veda has ten Mandala. In Bengal, the headman of a village. In Purniah it is the title of any respectable Hindu Sudra. A township, in its simplest form, is under a headman, called in the Dekhan and in the west and centre of Hindustan Patel, Mandel in Bengal, Makaddum in many places. He is assisted by different officers, of whom the accountant and watchman are the most important. 1. The accountant, called Patwari in Hindustan, Kulkarni and Curnum in the Dekhan and south of India, and Tallali in Gujarat. 2. The watchman, called Pashan, Gorayet, Peik, Domaha, etc., in Hindustan, Mahar in the Dekhan, Tillari in the south of India, and Paggi in Gujarat; 3. Money-changer or silversmith; 4. Priest; 5. Astwhju; 6. Smith; 7. Carpenter; 8. Barber; 9. Potter; 10. Worker in leather; 11. Tailor; 12. Washer-man; 13. Musician; 14. Minstrel; 15. Dancing-girl. The number is fixed by common opinion, and by the native name Bara-balotta, at twelve, but varies in different villages, and the officers included are not always the same, though up to No. 10 are seldom wanting. From 11 to 14 are not so general, and the dancing-girl seems only to be in the south of India. Each of these village officers has a fee, sometimes in money, but more frequently a portion of produce, as a handful or two out of each measure of grain.—*D.; Wilson.*

MANDALA PURUDAR was a Jaina ascetic, said to have lived in the time of Raja Krishna Rayar, who reigned at Vijayanagaram in the beginning of the 16th century. He wrote a poetic lexicon, Sudamani Nikanda, somewhat on the plan of the Sanskrit Amerakosha.

MANDALAY, the capital of Independent Burma, is situated in lat. 21° 59' 4" N., and long. 96° 8' E., about two miles from the left bank of the Irawadi, in a level plain at the foot of an isolated hill 600 feet in height, from which the city takes its name. The city proper is laid out in a square, each side of which is a little over a mile in length. It is enclosed in a brick wall, 26 feet high and 3 feet thick. An inner square, covering an area of about 72 acres, is taken up by the royal buildings. The parts of the city outside the royal enclosure are inhabited by the officials, civil and military, the soldiers, and the general population. The central or royal square is surrounded by an outer stockade of timber and an inner wall. Entering, the stranger comes on a wide space, and then finds on the right the Government offices and the royal mint. There is also the high court, or hlot dau, where the four chief ministers sit to hear appeals. The Pakhan Menghee, or Foreign Minister, and the Yaw-Ahtwen-Woon, or Minister of the Interior, have likewise their offices here. The palace buildings lie behind a wall on the left. The reception-hall with its rich decorations and golden throne, and some of the outer apartments, have been described by travellers; but into the inner apartments no European has ever been admitted. The repoussé gold and silver work is very beautiful and finished in execution; and the ivory and wood carvings, in clear and bold alto-relievo, are artistic in composition and design.

—*Imp. Gaz.*

MANDAPA or Mantapam, the portico of a Hindu temple; an open building, a pavilion for receiving and sheltering idols when carried in procession for the performance of marriage or other festive ceremonies.

MANDARA. Mount Mandara, celebrated in the Puranic legends for the churning of the ocean, lies southward of Bhagulpur. Vishnu is fabled to have become incarnate in the form of a tortoise; in which shape he sustained the mountain Mandara, placed on his back to serve as an axis, whereon the gods and demons, Sura and Asura,—the vast serpent Vasuki serving as a rope,—churned the ocean for the recovery of the amrita, or beverage of immortality. And the result of the operation that chiefly distinguished this avatara, was the obtaining of fourteen articles, usually called fourteen gems, or chaturdesa ratna, in common language chowda ratni,—1. the moon, Chandra; 2. Sri or Lakshmi, the goddess of fortune and beauty; 3. Sura, wine, or Suradevi, the goddess of wine; 4. Uchisrava, an eight-headed horse; 5. Kushtubha, a jewel of inestimable value; 6. Parijata, a tree that spontaneously yielded everything desired; 7. Surabhi, a cow similarly bountiful; 8. Dhanwantara, a physician; 9. Iravati, elephant of Indra, with three proboscis; 10. Chank, a shell conferring victory on whoever should sound it; 11. Danusha, an unerring bow; 12. Bikh, poison or drugs; 13. Rhemba, the Apsara, a beautiful and amiable woman; 14. Amrita, the beverage of immortality.

On the downfall of Buddhism, Mandara fell into the hands of the Saivites, and became a seat of their god so as to rival Benares, and form, as the Kasikhund states, a second Kailasa. The legend of the churning of the ocean is an interpolation in the Mahabharata, and evidently refers to the contest between the Brahmans (Sura) and the Buddhists (Asura), the great serpent Vasuki alluding to the Naga race.

MANDARIN, a magistrate of China, or a person having authority, from a Portuguese word Mandar, to command. Chinese mandarins use bamboo caps in summer as the official head-dress. —*Wuthen's Voyage*, p. 180.

MANDARIN DUCK of China is the *Aix galericulata*, costly birds even in China, where they are called Fen yeong. They are regarded by the Chinese as patterns of conjugal fidelity, and are usually carried about in their marriage processions. Sir John Bowring had great difficulty in obtaining a few. The Mandarin duck appears to be indigenous to the country north of Pekin. It has also been found in a wild state on the Southern Amur.—*G. Bennett, Gatherings*, p. 189.

MANDAVAR KOOLY. TAM. Graves of the dead, ancient burial-places in the Coimbatore district, circles of various sizes. They contain earthen jars, with fragments of human bones in earth. The term is supposed by Dr. Shortt to be a dialectal change from Panda curzi, the usual name for the cairns of the south of India.

MANDAVI, a large seaport town, in lat. 22° 51' N., and long. 69° 34' E., on the west side of a narrow creek, close on the Gulf of Cutch. Its vessels are from 25 to 200 tons burden, have a large lateen sail, with two masts, and are never decked. They trade with Zanzibar, Persian Gulf, Mekran, and Sind. Population about 50,000. Its chief is of the Baghela race. It

sends out some of the best seamen, pilots, and merchants, and exports cotton, wool, grain, ghi, and oil.

MANDELSLO, a traveller to India, accompanied the Duke of Holstein's mission to Russia and Persia, to which Olearius was secretary, in 1633-39. He had left Isfahan 16th January 1638, saw the ruins of Persepolis, passed through Shiraz, and on the 23d February 1639 reached Gomroon or Bandar Abbas. His surgeon, John Weinberg, died on the 22d March, and was buried in the English cemetery. On the 6th April, he embarked for Surat with Messrs. Mandley and Hall, two English merchants, and arrived on the 25th; and from Bandar Abbas he went on to Surat and Baroach, Brodera (Baroda), Ahmadabad, Cambay, Lahore, and Vezcapour, returning to Denmark, where he landed, May 1, 1640, from Surat. The narrative of his Voyages and Travels, translated by John Davies, was published in England, in one volume, with Olearius' account of the Duke of Holstein's mission in 1662 and 1669, and gives a most interesting account of the factory at Surat, and of the factors' manner of life. They were the inventors of punch (Puntz of Mandelslo, Paunch of Fryer), so called from the five (in Hindustani punch) ingredients, spirit, lemon or lime-juice, spice, sugar, and rose-water, used in its composition. The *πντα-πλόα* of the Greeks was composed of wine, honey, cheese, meal, and oil.—*Sir G. Birdwood.*

MANDEVILLE, Sir JOHN, author of a book of alleged travels in India and China. He set out from St. Albans in 1332, and returned and died in Liege in 1366. His descriptions of Ceylon are borrowed from Marco Polo and Odoric of Portendu. He seems to have adopted, as regards Sumatra, the accounts of Odoric when he says, 'Beside the yale of Lemery is another yelept Sumobor; and fast beside, a great yse yelept Java.'—*Marsden's Sumatra*, p. 7.

MANDHATA, an island in the Nerbadda, belonging to the Nimar district, containing numerous temples, ancient and modern, including the great shrine of Omkar, a form of Siva. It is cleft in two by a deep ravine running nearly north and south, the eastern end containing about one-third of the whole area. The southern bank of the Nerbadda opposite Mandhata (called Godarpura) is as precipitous as Mandhata, and between them the river forms an exceedingly deep and silent pool, full of crocodiles and large fish, many of which are so tame as to take grain off the lower steps of the sacred ghats. The worship of Siva was established here at an early age. On Mandhata the shrine of Omkar, and on the southern bank that of Amareswar (lord of the immortals), are two of the twelve great lingams which existed in India when Mahmud of Ghazni demolished the temple of Somnath in A.D. 1024. The name Omkar is from the syllable Om, which, says Professor Wilson, is a combination of letters invested by Hindu mysticism with peculiar sanctity, employed in the beginning of all prayers. It comprehends all the gods, the Vedas, the three spheres of the world, etc. The Brahmans who now officiate at the shrine wish to exclude Omkar from the twelve lingams, and it is usually called A' di, or first, as something above and before them all. The Narmada Khand supports them in this assertion, but as it contains a prophecy

of the time when India shall be ruled by M'hlecha (non-Hindus) and other modern allusions, its antiquity is certainly a good deal open to doubt. The evidence of the Kasi Khand and other Saivite writings is against them, and the pilgrims who have vowed to visit the Bara jyoti lingam pay their adorations both to Omkar and Amareswar. The raja of Mandhata, who is hereditary custodian of all the modern temples, is a Bhilala, claiming descent from a Chauhan Rajput named Bharat Singh, who is stated in the family genealogy to have taken Mandhata from a Bhil chief in the year A.D. 1165.—*Atk.*

MANDHATA, Gurla Mandhata, also called Nimo Namzil, lies ten miles south of Lake Manasarowar. According to the legend told by the Milam Bhotia, the great mountain is the transformation of the body of a raja of Benares of the name of Mandhata, who is said to have died some thousands of years ago on the shores of the Manasarowar lake while on a pilgrimage to its waters. Another notable peak is Kailas; it lies to the north of Manasarowar, and being in the shape of a Hindu temple is greatly venerated by all the Hindus of Northern India. 'Owing to its immense bulk and height,' says Mr. Ryall, '3000 feet above any within a radius of 40 miles, it is perhaps the most impressive sight in the whole of the Himalayas; the celebrated mountain of Nanga Parbat, N.W. of Kashmir, alone excepted.'

MANDI, a Native State of the Panjab, lying between lat. 31° 23' 45" and 32° 4' N., and between long. 76° 40' and 77° 22' 30" E. The ruling family is Rajput, of the Chanda Bansi clan, and is known as Mandial. Sen is the title borne by the ruling chief, whilst the younger members of the family are called Sinh. The chiefships of Mandi and Sukhet were originally a single state, bounded by Kangra on the west and Kullu on the east, by the Dhaoladhar mountains on the north and the Sutlej on the south. Mandi means the market, and its favourable position on the Beas river, at the junction of the two roads from the west and south, must have ensured its early occupation, which was rendered prosperous and lasting by the existence of valuable mines of iron and rock-salt in its immediate vicinity.

Mandi town, in lat. 31° 43' N., and long. 76° 58' E., is on the banks of the Beas. The river here is a swift torrent, and is spanned by the new 'Empress' bridge. The banks are high and rocky.—*Imp. Gaz.*

MANDIOCA or Manioc, the cassava root, is the Janipha manihot of Kunth, and Jatropha manihot of Linnaeus, and furnishes the tapioca of commerce. The pulp, after grating and washing, is thoroughly drained, and strained through long cylindrical and plaited baskets. In India every planter or landholder should have at hand the cassava or mandioca plant, the root of which is of the same nature as rice, as delicious as the potato, and keeps fresh under ground for years, indifferent to great changes of heat or cold.

It is a universal article of food in Brazil. Tirhut is in latitude north what Santa Catharina is south, and conforms to a great diversity of climates, seasons, and soils. It is easily planted and cultivated, and gives a return six times greater than wheat. It is branchy, and the numerous knots or leaf-marks on the branches are each a new plant. In cutting the branches to

MANDIR.

plant, the slips are made about three inches long, and include two or three of these knots, and each plant will give from say twenty to sixty separate slips, and therefore as many new plants.

Manioca and arrowroot are both rather extensively grown in the maritime provinces of Ceylon, the former being inferior in quality to that grown in the West India Islands. From the manioca, the Singhalese prepare a fine flour resembling arrowroot, but much sweeter and far more nourishing. Boiled or baked with milk, it forms a most delicious meal, partaking of the nature of a rich custard. See Arrowroot; Manibot.

MANDIR. HIND. A dancing hall at a Hindu temple. The mantapam of the Dravidian temples.

MANDLA, a town and district in the Jubbulpur division of the Central Provinces, on the right bank of the Nerbadda. The district lies between lat. 22° 14' and 23° 22' N., and long. 80° and 81° 48' E., with Rewah and part of the Balasapur district on the east, and Seoni, Balaghat, Raipur, and Balasapur on the south, with an area of 4719 square miles, and in 1877 a population of 223,883. It is a wild highland region, and 1724 feet above the sea.

While the rani Durgavati, widow of Daltap Sa, was regent, A.D. 1564, Asaf Khan, the Delhi viceroy, invaded Mandla. Durgavati opposed him, but she was defeated near Singaargarh in Jubbulpur district, and she fell back on Garha, and then on Mandla, where she took up a strong position in a narrow defile. Asaf Khan renewed the action, and suffered a check, but the next day he brought up his artillery and renewed the battle. The rani, though wounded, defended the pass in person, but the river in the rear of her army began to rise, and the Gond troops, alarmed at their retreat being cut off, broke and fled. Durgavati snatched a dagger from her elephant driver, and plunged it into her bosom and died.

The aboriginal tribes consist of Ahir, Baiga, Basor, Gauli, Gond, Dher, Mhar or Dhimar, Kach'hi, Kol, Kurmo, Yelo, Lodho, Teli, Panka, Marar, Mehra.

The original inhabitants of this district are undoubtedly the Gond and Baiga, who at the present time form the larger share of the population. Next to these are Brahman families, some of whom affect to trace back their arrival in Mandla to the time of Jadhava Raya in Samvat 415 (A.D. 358), though it is much more probable that they settled here in the reigns of Hirde Sah and Narendra Sah, from Samvat 1663 to 1788 (A.D. 1606 to 1731). The former of these two kings introduced a number of foreigners into the country, especially a large colony of Lodhia, who settled in the valleys of the Banjar, Motiari, and Nerbadda, gave the name of Hirde-nagar to the taluka thus brought into cultivation, and did much by digging tanks and otherwise to colonize the best parts of the district. The Mahto are the best cultivators, are Hindus, originally of the Teli caste, and formerly resident at Mailhir. The Mandla Gond is divided into two classes, which again are subdivided into forty-two different clans or got. The two classes are the Raj Gond and the Rawan Bansi. The former is the higher, and outdo the highest caste Hindus in the matter of purifying themselves and aping them in all their religious ceremonies. They wear the jano or Brahmanical thread, and consider themselves deeply insulted if compared in status with

MANDRAKE.

a Gond. Mr. Hislop says that they carry their passion for purification so far that they have the faggots with which their food is cooked sprinkled with water before use. See Gond.

MANDLESAR, town in Indore State, Central India, situated on the right bank of the Nerbadda, in lat. 22° 11' N., and long. 75° 42' E., on the route from Mhow (Mhau) to Asirgarh.—*Imp. Gaz.*

MANDOH, the ghost of a Muhammadan, in Hindu demonology deemed the most malignant of all demons.

MANDONG or **Mandrang.** MALAY. A rush much used by the natives in the manufacture of rice and sugar bags, mats, and for tying up articles, the fibre being strong. It grows spontaneously in the rice-fields of Province Wellesley, after the crop has been gathered, and overspreads them like a second crop. It may prove a suitable paper material.—*Royle.*

MANDOO, now in ruins, some time the capital of the independent Muhammadan kingdom of Malwa. It is on a spur of the Vindhya mountains, overlooking the valley of the Nerbadda and the plains of Nimar, having a site at an elevation of more than 2000 feet above the sea. The city of Mandoo was founded by Hoshang Shah, the founder of Hoshangabad; the second king, Muhammad Khilji, erected a mausoleum of white marble over the remains of Hoshang Shah, still in good preservation. On the Mandoo Hill is a terrace on which its Hindu queen would recline to gaze on the sacred Nerbadda winding through Nimar; close to this terrace was erected a palace, near a well-known spring, which to this day is called the queen's fountain. In general, Muhammadan ruins are situated on the plain, but the Mandoo ruins are in the midst of beautiful mountain scenery, so that the combination of works of art with the beauties of nature is most charming. Mandoo is built on coralline limestone, but that used for building is derived from near Baug or Bagh.

MANDRAKE, *Atropa mandragora.*

Usul-ul-lufah, . . .	ARAB.	Mandragen, . . .	GER.
Astrung, . . .	"	Mandragola, . . .	IT.
Tuhfah-us-shaitan, . . .	"	Lufahat, . . .	MALAY.
Serag-ul-koshrob, . . .	"	Mardam-i ghiah, . . .	PERH.
Yeburj, . . .	"	Yabruz, Yabruk, . . .	"
Lakmuna, Lakmuni, HIND.	"	Kaat-juti, . . .	TAM.
Mandragore, . . .	FR.		

The mandragora or mandrake, the fetid root of which was so celebrated in the magic rites and toxicology of the ancients, is known in the bazars of Central Asia and the north of India. It has various names, arising from its fancied resemblance to the human form. It was formerly an article of the materia medica of Europe, but is now exploded, though the leaves are still sometimes employed in preparing anodyne fomentations. The Arabians place the root, which they call Usul-ul-lufah, amongst their most powerful cathartics, and also suppose it to be of use as an antispasmodic. What of it is found in India is probably brought from Persia or Arabia. It is found in many parts of the south of Europe, is of poisonous qualities. Lufah is the plant. Tuhfah-us-shaitan is the fruit. Its properties are identical in nature with those of *Atropa belladonna*, but weaker, in consequence of drying and decomposition of the atropia. The mandrakes of Genesis xxx. 14, are generally supposed to be the root of *Mandragora officinalis*.

Calmet regards dudnim and plantains as citrons; but violets, lilies, jasmines have all been named. The Chinese physicians assert that this plant possesses the faculty of renovating exhausted constitutions. Some nations have believed that the root of the mandrake, if wholly dislodged from the ground, becomes the good genius of the possessor, not only curing a host of maladies, but discovering hidden treasures, doubling the amount of money locked up in a box, keeping off evil spirits, acting as a love-charm, and rendering several other notable services. — *O'Sh.* p. 466; *Hogg*, p. 552; *Faulkner*; *Ain*, p. 26; *Calmet*.

MANEGAR or Maniyakaran. TAM. An agent, a native accountant, an overseer.

MANEL, a pink water-lily of delicious perfume, commonly offered before the figures of Buddha. Its flower closes at sunset.

MANELAVADU. TEL. An itinerant dealer in coral and gems, commonly termed a Manillaman, but probably from Mani, SANSK., a jewel.

MANERUNG, in the Himalaya, in lat. 31° 56' N., long. 78° 24' E. Its crest is 18,612 feet, and the source of the Darbung there, 15,000 feet. A very difficult pass. See Kanawar.

MANES of Hindus are worshipped and have sacrifices offered to them on the third day, the twelfth day after demise, every month of the first year, and on every anniversary. The Bhumiij, Bhuniya, and Kol tribes practise the ceremony by which the soul of a man just deceased is attracted back into the house soon after the funeral, apparently with the object of worshipping it as a household spirit. All Hindus bring back into the house the soul of their deceased relative, and then release it.

MANG or Mhaug, a low caste tribe scattered through Kandesh, the Konkan, and Kolhapur, employed as village watchmen and in humble offices. The Mang reside outside villages. They are met with in most of the hamlets throughout the Hyderabad country and in Berar, and serve as scavenger, guide, watchman, and executioner. Their signature mark is a knife. They are part of the Baluth, and, like the Dher and Mahar, are predial slaves of the village. There were 556,771 in 1881 census returns of India.

MANGA of Zanzibar is Arabia. The Arabs are called Wa Manga by the people of Zanzibar.

MANGALA. SANSK. The planet Mars. In Hindu mythology, Mars was son of Siva and the earth, and had several names. Mangal-var is Tuesday. — *D.* See Graha; Va'ra.

MANGALA SUTRA. SANSK. Tali, HIND. A thread with a gold coin or other valuable, which every Hindu married woman in the south of India wears during her husband's lifetime round her neck. It is tied on by the bridegroom at the time of marriage. In the north of India, it is a string or piece of silk tied round the wrist during the marriage ceremony. In other parts of India it is a string of glass beads set in gold, worn round the neck of the married woman. Its absence is a sign of widowhood. With the Teling people Mangala is applied to a married woman, a wife. The Hindu women of Bengal, on marriage, assume an iron bracelet. The Christian women of Europe wear a gold ring on the fourth finger of their left hand.

MANGALORE, on the coast of Canara, in lat. 12° 51' 40" N., and long. 74° 52' 36" E., is built

near the mouth of a river navigable by small vessels, with about 10 or 11 feet on the bar. It is a civil and military station of British India. It has long been resorted to by vessels trading with Arabia. It was taken in 1708, again in 1783, by troops from Bombay; and on one occasion afterwards was successfully held for nine months against a besieging force from Mysore, 10,000 strong, with 100 guns. The garrison was commanded by Colonel Campbell, of the 42d Highlanders, with 700 Europeans and 2000 sepoys; but when taken, the defenders were reduced to 850. In 1799, Mangalore became British territory, and since that time it has only once been disturbed by the appearance of an enemy, namely, during the Coorg insurrection in 1837. — *Imp. Gaz.*

MANGALORE or Mangala means fortunate. The native name is Kaudial; the Mangalur, Manjarur, and Mangaruth, according to the Greek writer Cosmas (6th century), of Arab travellers. — *Yule, Cathay*, ii. p. 451.

MANGANESE.

Mung-kin, . . . CHIN.	Braunstein, Glasseise, GER.
Brunstein, . . . DUT.	Kolsa ka pathar, . . HIND.
Savon du verre, . . FR.	Idilali kalu, . . TEL.

The substance known in commerce under this name is the peroxide or black oxide of the metal. It is commonly of an earthy appearance, and mixed with other ingredients, but sometimes in crystals of a black colour and metallic lustre. The substance is well suited for glazing pottery, along with galena and felspar. In small quantities it gives a yellow colour; in large, brown; then a blood-red, purple, or black, as the proportion of manganese is increased. It has also the property of hardening the glaze, so as to resist vinegar and weak acids. Concentrated mineral acids, however, will corrode it. It is largely consumed in the manufacture of bleaching compounds; it is also used by potters; and it is considered the cheapest material from which to procure oxygen.

At the Madras Exhibitions of 1855 and 1857, the silicated sesquioxide was exhibited from Vizianagram in blocks, weighing from 2 to 3 cwt. each, with from 53 to 54 per cent. of metallic manganese. It has been discovered in a good many parts of the Madras Presidency under the form of earthy manganese ore, dendritic manganese ore, and combined with iron in a good many of the ochrey iron-stones, laterites, claystones, and cotton soils of India. It was mined by Hyder Ali and Tipu Sultan in the Kupputode range. It has been found also in the iron ore near the lake at Ootacamund, and in the Kaiti valley; also in Mergui, Burma, and the Himalaya.

Good ore occurs in Kurnool, at Tumkur in Mysore; in Sundur and Rudrar in the Coileuntlah taluk. Brown wad and brown fibrous manganese occur at the Red Hills, Bangalore, and Cuddapah.

In the bazars of the Panjab, manganese in the forms of a silicated sesquioxide and a peroxide is obtainable as a black powder, or in lumps of the pyrolusite.

Manganese is found in China in connection with the iron ores of Chin-Chan of Ho-nan. — *Smith; M. E. J. R.; Waterstone; Faulkner; Powell, Hand-book; Mason's Tenasserim.*

MANGCHAR has a few dispersed hamlets. It is well irrigated with canals, and the whole plain is intersected with bunds or dams to preserve the rain. The tomans are scattered over the plain.

Many brood mares are kept. It is separated from Mustang by a lengthened valley termed Khad, in which the Shirwani tribe of Brahui dwell. The Brahui tribes on the east border with the Mandawari, Kuchik, and Puzh Rind tribes, and the Ghazgi Brahui adjacent to Cutch Gandava.

MANGEL-WURZEL.

Field beet, . . . ENG. | Mangold-wurzel, . . . GER.
Betteraves, . . . FR. | Biettole, . . . IT.

A variety between the red and white beet has been a good deal cultivated in France, Germany, and Switzerland, partly as food for cattle, and partly to be used in distillation and in the extraction of sugar. Its culture in Great Britain dates only from the end of the 18th century. It is employed almost entirely in the fattening of stock and the feeding of milch cows.

MANGIFERA, a genus of plants belonging to the natural order Anacardiaceae. There are several species, but only *M. Indica* is of much value. *M. coloneura*, Kurz, of Burma; *M. foetida*, Loureiro, a native of Cochin-China, the Moluccas, Sumatra, and Penang; *M. laxiflora*, Desv., indigenous in Mauritius; *M. sylvatica*, Roxburgh, a native of the hilly districts bordering on Sylhet, called Lukshmi-Am, grows to a great size, and bears a fruit which ripens in February and March, and is eaten by the natives, though not so palatable as even a bad mango. It is also dried and kept by them for medicinal purposes. *M. oppositifolia*, Roxburgh, a native of Rangoon, was proposed by Messrs. Wight and Arnott to be formed into a distinct genus; *M. glauca*, Blainv., a tree of the Moluccas; *M. quadrifida*, Jack, *M. casia*, Jack, trees of Sumatra; *M. gandaria* of the Moluccas, and *M. sylvatica* of Tinnevely.—Voigt; Roxb. p. 1641.

MANGIFERA FOETIDA. Lour. Horse mango.

La moot, . . . BURM. | Bachang, . . . MALAY.

This large mango is cultivated at Mergui, and is quite a favourite with the natives. It has an odour resembling the dorian, and, like that, has been introduced from the Straits.—Dr. Mason.

MANGIFERA INDICA. Linn. Mango.

<i>M. montana</i> , Heyne.	<i>M. domestica</i> , Gaertn.
Maghzak, . . . ARAB.	Mangge, . . . SUNDA.
Am, . . . BENG., HIND.	Ma maram, . . . TAM.
That-yat, . . . BURM.	Mavi, Mamidi chettu, TEL.
Mavena, . . . CAN.	Ela (fragrant) mavi, "
Mang-kwo, . . . CHIN.	Guju (dwarf) mamidi, "
Palam, . . . JAV.	Etamba (wild) mamidi, "
Kapalam, . . . LAMPUNG.	Racha mamidi, . . . "
Mampalam, Mava, MALEA.	Tiyya mamidi, . . . "
Makandamu, Amra, SANS.	Ambo, Uria, . . . "
Amba, Attamba, . . . SINGH.	

The mango tree is generally diffused over all the warmer parts of S. Asia, as far north as 30° in the Panjab, in N. India up to 3500 feet, and up to Nabu at an altitude of 4000. It has been successfully introduced into the West Indies. It grows to a great size, with an erect trunk, and dark-coloured cracked bark. Its flowering time is January, February, and March; the fruit ripens in May, June, and July, and is one of the most grateful fruits of the tropical parts of Asia. The Archipelagic names of the cultivated mango are all, according to Crawford, derived from the Sanskrit, *Maha-pahala*, or great fruit. Through the agency of Europeans, however, the corrupted form of the Sunda name for the wild mango has become prevalent throughout the east, from Mada-

gascar to the Philippines, and has extended to America. The mangoes of Mazagaon were once celebrated. The best mangoes come from Goa, Bombay, Multan, Hushyarpur, and Karnal. The best of all are the Paiwandi, or grafted mangoes, at once known by the entire absence of all stringiness of texture, and by their delicate flavour. Natives usually prefer mangoes when they are so ripe that they have lost their firmness, and are quite flabby and soft. The wood is of a dull grey colour, porous, yet pretty durable if kept dry, but soon decays if exposed to wet, of the effect of which it is very sensitive. In very large old trees it acquires a light chocolate colour towards the centre of the trunk and larger branches. This is hard, closer grained, and much more durable. It is generally used for constructing masula boats, and for packing-cases; the cabinet-makers at Madras prefer it to other wood for veneering on; it is also generally used by coach-builders, cabinet-makers, and others, where common light wood is required, being the cheapest wood obtainable for packing-cases, boarding, and rough work, and for backs and linings of furniture. The wood holds a nail faster than any other wood. It is very serviceable for planks, when not exposed to wet, and is much used for house purposes. It seems to bear the action of salt water better than that of fresh; is hence used for canoes. It could be readily creosoted. It is used in Mysore for the solid wheels of country carts and rough furniture. The root bark is an aromatic bitter. The kernels are large, and seem to contain some nourishment; during times of scarcity and famine, they are boiled in the steam of water, and used as an article of diet. Propagating by layers, and grafting by approach, are the only modes of certainly continuing fine sorts, as well as of improving them. These have the advantage also of bearing when small in size, that is, only a few feet in height, and therefore well suited to culture in the hothouses of Europe.

The mango tree is said to have been brought into India by Ravana from Ceylon. Some of the most esteemed sorts of this fruit in India are the Alphonso, Raspberry, Doria, Maghrabih, and the Mazagong. The practice of engrafting the mango was first introduced at Madras by Dr. James Anderson, who improved it in a great degree. Propagation may easily be effected by seed and cuttings, etc., but the process is slow, as a tree thus raised will not bear fruit before the fifth or sixth year, whereas those that are grafted produce in the second or third, although it is injurious to the tree to let it bear so early, and the blossoms should be removed. Young grafts will sometimes, indeed very often, blossom the first season they are removed, but if allowed to bear fruit, it checks them for a length of time after. A mango graft may be applied at any time of the year, but the stock must be kept continually moist by watering. When the graft and stock have become united, the former must be partially divided by a notch with a sharp knife; this may be done after six weeks have elapsed from the time of its first being united. A second cutting may be effected a fortnight later, and the complete removal from the parent tree at the expiration of nine or ten weeks. After this, remove the graft into the shade for a fortnight longer, when it may be put into the spot where it is to remain. A graft tree never attains the size

of a seedling, neither will it continue to live or bear so long, and it is doubted if the seed of a graft mango would produce the same fruit, whereas a seedling often does so. The time that a seedling takes to produce fruit is the great objection to this mode of rearing trees; nevertheless a young tree of three years old might have one of its branches brought into blossom by ringing; this would enable the cultivator to judge if the tree was worth preserving or not. The Maghrabah variety is of a greenish tinge inside when ripe, and by far the largest of the whole, being three times the size of an Alphonso, and it ripens the last. When the graft is planted out, it requires only a moderate proportion of care, clearing the ground of all weeds, and removing any buds that show themselves. Within the space from the ground to where the first branches are to rise from, all superfluous and weak shoots should be removed, more particularly those from the centre of the tree, as also all branches that trail on the ground, unless required for grafting from. The tree is better for being pruned, and whenever the interior of a tree may contain superfluous branches, or when there is not sufficient room for the growth of the young and fruit-bearing shoots, a clear space must be provided, and this can only be done by pruning. The best time for this operation is soon after the tree has done bearing fruit. No old and decayed wood should be allowed to remain, and great care must be taken to remove, on the first appearance, the 'borers,' should they indicate their presence by their appearance on the bark. When trees are old and have their bark injured, it must be all cleared away, and the parts covered with a composition. One mode of propagating by slips or cuttings is thus described: Take slips from the healthy branch of a mango tree, at least two feet long, taking care to cut it one inch above the joint at the top, and the same below the joint at the bottom. The cuttings will not all be equal, as in some branches the joints are short and in others long. The thickness of the slip is to be from $\frac{3}{4}$ to 3 inches in diameter. Half the length of the slip is to be slightly punctured with an awl, and then inserted into the ground to that depth (half of the slip), perfectly perpendicular, and then make a knob at the top of the slip with plain cow-dung. The cuttings must be well watered in such a manner as to keep up an uninterrupted moisture in the ground; and, moreover, the cuttings are to be well shaded, and the coverings only to be removed by degrees as the plants attain leaves and strength, and not to be transplanted on any account until the next monsoon. The slips begin to bud within a month generally, but sometimes take a much longer period. In all cases the punctures are indispensably necessary, to admit of root-fibres being thrown out from them.

The tree and its fruit may both be improved, if, during the cold season, the ground is dug all round the roots, and by the addition of a suitable quantity of good old manure. The seed will only grow when fresh, and seldom after six weeks. When green, it is used for making preserves, pickles, tarts, etc. The mango may be procured twice in the year in Bombay. Mango tree leaves are liable to be attacked with a blight caused by an aphid.—*Drs. Ainalie, Royle, Riddell, McClelland, Gibson, Wight, Cleghorn, Voigt, Mason.*

MANGIFERA OPPOSITIFOLIA. *Roxb.*
Cambessedea oppositifolia, | *Bouea oppositifolia*, *Alris.*
W. and A. | *Mayan*, *Burm.*

A lofty spreading tree which grows wild in most parts of Burma. Fruit edible, yellow; the size of a plum. There are several varieties, of which some are sweet, and others sour. Wood used for building purposes.—*Cat. Cat. Ex.*, 1862; *Roxb. i.* p. 640; *Malcom's Travels*, i. p. 179.

MANGLIETTA, a genus of plants belonging to the natural order Magnoliaceæ. *M. glauca* has a white solid wood, which is largely employed in Java, and is supposed to prevent the decay of corpses put into coffins made of it.—*Eng. Cyc.*; *Hogg, Veg. King.*

MANG-MO, a name of Bamo, a frontier town in the Shan territory, between Yun-nan and Burma. It has the Pu-long tribes and the Kakhien around it.

MANGO BIRD, the bright yellow oriole.

MANGO FISH, species of *Polynemus*, of the Irawadi and Ganges. *P. longifolia*, *Cuv.*, *P. paradiesus*, *Linn.*, and *P. risua*, the Tupsee-mutchee, 8 or 9 inches long and 2 deep, are splendid fish and favourites with many; they are nearly related to the mullets; the last is remarkable for the long filaments to the pectoral fins, and as being without a swimming-bladder, while the other species have it large and stout. Five species are described by Dr. Buchanan in his Gangetic Fishes, but only two are of considerable size, occurring in the estuary of the Hoogly. One of these, with another large species, is also described by Dr. Russell in his work on the Fishes of the Madras Coast. That figured in his tab. 184, and called maga-booshy, is *Polynemus uronemus* of Cuvier; while the magajellee, tab. 183, named *P. tetractylus* by Shaw, is probably *P. Teria* of Buchanan. Both, but especially the first, Russell says, are esteemed for the table, and called roeball by the English.—*Mason.* See *Polynemus*.

MANGO. HIND. An edible Himalayan root.

MANGO PEEL, dried mango, the Am chur or Am khusk or Ambusi, *HIND.*, dried mangoes. Mango pickles are much in use amongst both Europeans and natives. Take about 800 green mangoes, divide into two, and dry in the sun for three days. Take of turmeric, $\frac{1}{2}$ oz.; garlic, $3\frac{1}{2}$ oz.; salt, 6 lbs.; mustard, $1\frac{1}{2}$ oz.; and coriander seed, toasted, $1\frac{1}{2}$ oz.;—mix the spices together, and lay the mixture in alternate layers with the mangoes, and add 9 oz. of gingelly oil. The green fruit of the mango is used for making chutnies, pickles, and curries. Mangoes, when full grown, are cut into slices, dried in the sun and preserved, and they form an article of commerce; used in acidulating curries, mulligatawnies, etc. Mango spirit is prepared from the mango. The taste of the spirit is not unlike whisky, and far superior to anything of the sort sold in Indian bazars for every purpose to which the latter is applied. With the specific gravity about .9085, temperature of 80° F., gives about 60 per cent. of alcohol to the volume of spirit.

MANGOSTEEN, *Garcinia mangostana*.

Manggis, *BALI*, *JAV.*, *MAL.* | *Shan-chuh-kwo*, . . *CHIN.*
Mangusta, , | *Monggos*, . . . *LANUNG.*
Mangisi, *BUR.* | *Mangu*, *SUNDA.*

The mangosteen plant is about the size of a cherry tree, and very handsome. It grows in perfection as far as 14° north of the equator and

7° south of it. A congenial proportion of heat and moisture throughout the year seems much more requisite than soil or latitude for the successful growth of this fruit. Malaya's nectared mangosteen is truly a delicious fruit, and is by many esteemed as the most palatable of known fruits. It is cultivated to a considerable extent in Mergui and Tavoy,—in Mergui ripening in May,—and it has been successfully introduced into the Travancore province; and both the nutmeg and the mangosteen have been introduced with singular success at Ceylon, while their cultivation has entirely failed in Bengal.

Bontius thus describes this delicious fruit—

'Cedant Hesperii longe hinc, mala aurea fructus,
Ambrosia pascit Mangostam, et nectare Divos.'

Its characteristic quality is extreme delicacy of flavour, without being rich or luscious. It is a drupe of a brownish-red colour, and the size of a common apple, consisting of a thick rind, somewhat hard on the outside, but soft and succulent within, encompassing kernels which are covered with a juicy and perfectly white pulp, which is the part eaten, or more properly sucked, for it dissolves in the mouth. The thick fleshy rind is given internally in diarrhoea and dysentery, and is applied as an astringent externally.—*Marsden's Sumatra; Crawford's Dict.; Mason's Tenasserim.*

MANGROVES are plants, shrubs, and trees, of the natural order Rhizophoraceæ, *Lindley*. In the East Indies, the principal are—*Bruiguiera caryophylloides*, *cylindrica*, *eriopetala*, *gymnorhiza*, *Malabarica*, *parviflora*, and *Rheedii*; *Carallia garcinifolia*, *lanceifolia*, *lucida*, *Zeylanica*, and *Candollianus*; *Rhizophora conjugata*, *mangle*, and *mucronata*; *Cerriops Roxburghianus*, *Candoleana*, and *Kandeliana Rheedii*.

Mangroves abound on the coasts of the Bay of Bengal, and of the Indian islands. The true mangroves are remarkable for the copious development of adventitious roots, which arch outwards from the base of the stem over the reeking mud-flats in which they delight; and yet more so from the circumstance that the seed germinates in the ripe fruit while still attached to the parent tree, growing down into the mud, or attaining a foot or more in length before falling. *Rhizophora mangle* is used in tanning, and its wood gives a red dye. The tree forms a striking feature in the physical geography of the Archipelago, as it does indeed of all tropical countries, for a belt of it as deep as the reach of the tide is always found wherever there is a shallow and muddy shore. The tree rises to the height of 40 or 50 feet, and is invariably found in such situations constituting a dense and almost impenetrable forest. Each tree stands on a cradle of its own roots from 5 to 6 feet high, bare at low water, but as the tide rises covered so as to give the appearance of trees growing in the sea. Mangrove jungle is the favourite resort of mosquitoes and crocodiles, and affords a convenient and almost inaccessible retreat to pirates. The bark of *Rhizophora mangle* is used in the East and West Indies to dye chocolate colour. This was one of the colours introduced by Dr. Bancroft, and for the exclusive use of which he obtained an Act of Parliament. It is procured in plenty at Arakan, in Malabar, and at Singapore, and as it is often imported for tanning, can be readily enough obtained if found valuable to the home dyer. The bark of a small tree from the

mangrove swamps is used by the Tavoy women in dyeing red, but Mr. Mason thinks only as a mordant. *Rhizophora gymnorhiza*, the Kayu api-api of the Malays, is used for fuel in the Indian Archipelago. The cuttings of the black mangrove or *Rhizophora (uppu ponna)*, as of the white mangrove, the *Avicennia tomentosa (Mada chettu)* and of the *Sonneratia*, are used for firewood at Masulipatam. Mangrove bark is imported from Singapore and Siam into China, where it is used to tan sails, cordage, and nets, and is called *Kaup'i*. Curriers in England have failed with it, although the bark, fruit, and roots all abound in tannin.—*Smith, M.M.C.; Royle, Fib. Pl. p. 301; Mason; Crawford, p. 266; Cat. Ex., 1862.*

MANGU. This wood, and the *ati ati*, the *kraminan*, the *purwo-kuning*, and several others, are employed as timber at Singapore.

MANGUIAN, aboriginal tribes occupying the interior of the island of Mindoro. The Manguianes are a mild people, but so little advanced in civilisation, that European visitors, who have not had opportunities of personal communication with the Manguian, often leave the island with the impression that they are only a more savage variety of the same race.—*Jour. Ind. Arch.; Earl, p. 133.*

MANI. SANSK. Literally precious stone. In Tibet, long dykes covered with slate slabs, engraved with the words, 'Om! mani padma om,' or walls 4 to 5 feet in height and 4 to 8 in breadth, but their length varies much. One, 2200 feet long, is on the road leading from the banks of the Indus to Leh. They are generally of loose stones, and have flagstaffs at their ends. They are often of mingled heaps of broken things, which are raised up in notable places and hills as objects of peculiar veneration. Om is an often occurring word amongst Buddhist Tibetans in the prayer, Om! mani padma om. In passing the Mani, the Ladakhi keep them on the right hand. The same is done in passing monasteries. They are votive offerings from all classes of people for the attainment of some object.

MANI. HIND. A weight (agricultural) = 6½ maunds.

MANI or Manes, a Persian of the time of Shapor, A.D. 277. He pretended to be the Paraclete promised in the 14th chapter of John, and soon established a sect, but was persecuted by Shapor, on which he fled to Eastern Tartary. While there, he engaged in drawing, and produced a great many extraordinary figures, which his followers, on his return, believed were given to him in heaven, where he informed them he had spent the time during his retreat. His religion is known to Europeans as the Manichean, a mixture of magian, Christian, Buddhism, and Hinduism. Christian patriarchs and bishops followed him. He blended with his doctrine the metempsychosis and the two principles of Zertusht. He was put to death by Bahram I. about A.D. 277. Sir W. Jones, however, gives the date 242 as that of king Shapor of Persia, and the date of the death of Mani as A.D. 272.—*Chatfield's Hindustan; Sir W. Jones, v. p. 600; Mosheim, Eccl. Hist. i. c. v.; Socrat. Schol. Lit. i. c. xxii.; H. G. Keene.*

MANIAM or Maniyam. ARAB. In the south of India, lands held rent-free or under easy conditions. Professor Wilson traces it from Manya, SANSK., respectable. It is probably from Inam, ARABIC, gift. There are four kinds of tenure,

viz. ardha, dumbala, sanad, and sarva-manyam. —*Cal. Cat. Ex.*, 1862.

MANIAUK or **Maneeoga**. **BURM.** A wood much used for rice-pounders. Abundant all over the Tenasserim and Martaban provinces. When seasoned, it floats in water; when stored, it soon dies and rots. The roots are used for medicine; the fruit is eaten by Burmese.

MANI CHAKA, **Chandra - kanta**. **SANSK.** The moonstone.

MANIHAR, **Maniar**, or **Mannair**, a maker of glass bracelets worn by women, a jeweller.

MANIHOT AIPI. **Pohl.** The sweet cassava plant; the root reddish and harmless, and can be used as a vegetable after simple boiling, and tapioca can be prepared from it; it grows several feet high. —*F. V. Mueller*.

MANIHOT UTILISSIMA. **Pohl.**

Janipha manihot, *Kth.* | *Cassava manioc*.
Alpy, **Kaviaraku**, **BRAZIL** | **Piwore**, **Ouyoon**, **GUIANA**.
Tapioca plant, . . **ENG.** | **Masato**, . . . **MEXICO**.

Manihot utilisima, **Pohl.**, the bitter cassava or tapioca plant. The yellowish tubers attain a length of three feet, and a weight of 30 lbs., in warm countries, and are available in eight months, though they continue to grow longer than that. The growth of the plant upwards is checked by breaking off the buds. The propagation is effected by cuttings from the ligneous part of the stem. It is a very exhausting crop, needs rich soil and manuring, and the soil must not be wet. The tubers do not become soft by boiling. They can be converted into bread or cakes, the volatile poison of the milky sap being destroyed through pressing of the grated root in the first instance, and the remaining acidity is expelled by the heating process. The starch, heated in a moist state, furnishes the tapioca. —*Von Mueller*. See *Mandioca*.

MANIKHYALA, a village and group of ruins in the Rawal Pindi district of Panjab, lying in lat. 33° 27' 30" N., and long. 73° 17' 15" E. The small village is 40 miles from the Jhelum on the high road. It is a little more than half-way between Attock and the town of Jhelum. It is built on the ruins of a very ancient city of unknown origin, but its position and the abundance of coins found in the ruins, admit of the assumption that it must have been the capital of all the country between the Indus and Hydaspes, a country which the ancients knew by the name of Taxila, and of which frequent mention is made in the history of Alexander. Near it are 15 or 20 Buddhist tope, most of which were opened by General Ventura and M. Court about the year 1830, when relics of great value were found. In one was a gold cylinder enclosed in one of silver, and that again in one of copper. In the innermost one were four gold coins, ten precious stones, and four pearls, with some worn Roman coins, one of date B.C. 30. General Cunningham opened one, in which he found a copper coin of the Satrap Zeionises, enclosed with other relics in a glass stopper bottle. The principal tope was figured by Mr. Elphinstone, and is 127 feet in diameter. General Ventura found in it three separate deposits of relics with coins, some Sassanian, one of Yasoverma (A.D. 720), one of Abdullah-bin-Hassim, struck at Merv A.H. 66 (A.D. 685). One tope is 80 feet high, and 320 feet in circumference. —*Fergusson*, p. 79.

MANIKI, amongst the Kol, the head of a number of Munda.

MANIK RAI, a Chauhan king who, in A.D. 685 (Hijira 63), met the first Muhammadan invaders of India, who were part of an army sent into Sind by the khalif Umar. Manik Rai and his son Lot were both killed, but the anniversary of Lot's death is still preserved by the Chauhan. The family then retired to Sambur in Rajputana, where they prospered, and great Rajput families descended from it are known as the Hara, Mohil, Bhadaurea, Dhanarea, with the Kheechee, Narbhana, Bhowreecha, etc. The first-named four established independent kingdoms. In A.D. 1170, the Chauhan wrested Dehli from the Tuar Rajputs, as recorded in inscriptions in a Jain temple at Morakuro, and on the column at Dehli. Throughout the subsequent period of the Muhammadan conquests of India, the Chauhan retained their fame for heroic endurance of misfortune above all other warlike tribes of India.

MANIKYAVA-CHAKAR, a devotee of Siva, a poet.

MANILA, the capital of Luçon and the Spanish Indies, one of the largest in the Philippine Islands, and the seat of the Spanish Government in the east, situated in lat. 14° 36' N., and long. 120° 57' 20" E. Manila is on the right bank of the river. It was founded in 1581, and in 1851 contained a population of 150,000. In 1762, Roca surrendered, and transferred the island to the British. It is a large city and convenient for trade, the adjacent country producing excellent indigo, sugar, tobacco, and hemp for cordage. Manila Bay is a large inlet in the S.W. coast of Luçon, about 22 miles in extent each way; the city of Manila stands on its eastern shore, about 25 miles from the entrance. The Spanish Indians are passionately fond of dress and personal decoration, and are given to pleasure. To a certain point they will work, but they are improvident and devoid of ambition, taking no thought for the morrow. There is much sympathy between the Indians and the Spaniards, and intercourse between the two races by no means entails the social degradation of the children which it does in India. The Mestizos of the Philippines are a more fortunate product than the Indian half-castes, for they usually combine the best points, physically speaking, of both parents. The true aborigines of the Philippines, in the mountains and the less habitable parts of the islands, are several tribes of savages who have not been brought within the government of the priests. The Negritos are woolly-headed people of the true African type. They are harmless and docile. The Igrogotos, a straight-haired tribe, fierce and untameable, inhabiting still more remote parts of the jungle, are very little known to the Spaniards. In the Philippines earthquakes are not only frequent but severe. A very important one occurred in 1880.

Cock-fighting is carried to a passion unknown elsewhere. Every Manila Indian has a game cock upon his shoulder, or tucked under his arm, or occasionally perched on his head; and when two men meet they will speak a few words, squat down, and allow their respective birds, who have meanwhile been bristling up with warlike ardour, to take a few quiet pecks at each other, and without further comment each will go on his way, and each cock resume a peaceful attitude. Yet, as

there is a tax on cock-fighting, it is unlawful to allow the cocks to come to a regular pitched battle, excepting at the proper certified cock-pits; the same with gambling out of the licensed houses; and half the convicts that are seen working on the roads in chains are doing so for the grave offence of fighting their cocks or playing 'monte' in unlicensed places, by the roadside, or anywhere but at one of the Government establishments. The principal saints' days and Sunday afternoons are the favourite cock-fighting times. The cocks are spurred with bright pieces of steel, about 3 inches long, and as sharp as the best razor,—generally made out of old razors; and frequently both birds lie dead at the same moment. Sometimes an accidental blow from the inferior bird settles the question, for the spurs are deadly, and do not need much repetition to become effective. In general, the handsomer bird is the vanquished, and the lesser and meaner-looking the hero and victor. The Indians often pluck a beaten cock alive in revenge at his having lost, though the poor brute has been the petted and constant companion of his master for months before, and has learnt all the ways which domestic animals do learn when in hourly contact with man.—*Literary Gazette.*

MANILA DRAGON CANES. These white and brown canes of commerce are supposed to be the stem of the *Calamus draco*, the dragon's blood palm. See *Calamus*; *Cane*; *Dragon Cane*.

MANILA HEMP. *La mot*, *BISAYA*; *Abaca*, *TAG.* The *Musa textilis* plant, which yields this hemp, was introduced by Dr. Roxburgh into the Northern Circars, but it had been neglected and died out, and during the administration of Lord Harris, Colonel (now Sir George) Balfour obtained for Madras a fresh supply of its roots, and it is growing freely in the Wynad; but Great Britain is annually importing 18,000 tons of it from Manila, value nearly a million sterling, although India, in two years' care, could supply all the demand. It is a native of the Philippine Islands, where there are several varieties known under different names. The *Abaca brava*, the wild abaca, is called by the *Ilocoles*, *agotai*, but the fibres of the mountain abaca, only, serve for making ropes, which are called by them *Agotag*, *Amoquid*. The *Sagig* and *Laquis* of the *Bisaya* are other varieties. Rumphius states that the Malay name of the *Laquis* is *Pissang utan*, which means wild plantain. It is called in Amboyna *Kula abbal*; in Ternate *Fana*; and in Mindanao *Coffo*; also the cloth made from it. The abaca is abundant in the volcanic region of the Philippine Islands from Luçon to Mindanao, as also in the neighbouring islands as far south as the Moluccas. It therefore extends from the equator to lat. 20° N., and may probably be easily cultivated in Travancore, Arakan, Assam, and the Northern Circars.

Mr. G. A. K. Honey, British Consul, Manila, reports that the plant thrives best in soil largely impregnated with decayed vegetable matter, the districts in which it is planted being to a great extent reclaimed forest lands. Hilly land is the most suitable, the plant yielding more abundantly on such than on low-lying flat ground. The plants require a large amount of moisture, and the production is chiefly in the southern districts, where the rainfall is greater. The plants suffer

severely during long periods of excessive heat and drought. The custom there, after cleaning the land thoroughly, is to plant small plants of about 3 feet high, leaving a space of from 2 to 3 yards between each, the young shoots which spring up later round the parent stem filling up the intervening spaces, the ground being thoroughly cleaned and freed from weeds at least twice a year. In a favourable soil, the first crop will be available in about two years after planting, but will only be about one-third of the full production. In the fourth year a full crop will be obtained. The plants must on no account be allowed to fruit, as they then become worthless. When matured, they are cut down about a foot from the ground; and the labourer strips off layers from the trunk, which are cut into strips of about 3 inches wide, or, say, three strips to each layer. The strips are each drawn through between a blunt knife and a board, to remove the pulpy vegetable matter from the fibre, which is then spread in the sun to dry. So soon as it has been thoroughly dried, it is ready for the market. The appearance of the fibre depends entirely on the care bestowed in drying it, as, should it be exposed to rain or not thoroughly dried, it becomes discoloured or assumes a brownish tinge, and loses strength to some extent. The outside layer produces a reddish-coloured fibre, which is, however, quite sound, and is easily distinguishable from spoiled hemp. The cost of preparing and planting a quiron (10,000 square fathoms), and keeping it clean up to the time of the first crop, is estimated at \$200 to \$300, not including the original cost of the land, and afterwards an annual outlay of about \$60 would be required to keep the soil free from weeds, &c. The above-mentioned extent of land would produce 30 to 40 pikuls (140 lbs. English each), after the plantation is three years old. The labourers receive one-half of the result of their work, the other half going to the owners of the trees. The quantity cleaned by one man working steadily day by day averages about 12 lbs. When once planted, the trees send up shoot after shoot from the old roots, and a plantation will continue to give a good production for from 15 to 20 years, after which the soil becomes exhausted, and new land has to be planted. The total production of the fibre in the islands in 1882 was 325,600 bales, or 40,700 tons, which is just about the estimated total consumption of the world.

The imports into Britain of hemp from Manila were—

1877,	332,304 cwt.	£488,069	1881,	353,770 cwt.	£491,186
1878,	421,180 "	561,856	1882,	373,231 "	830,033
1879,	337,687 "	434,037	1883,	330,132 "	747,031
1880,	407,431 "	622,776			

In Britain it is used for the finer cordage, yachts' rigging, and clothes-lines.—*Royle, Fib. Pl.*

MANIPUR STATE is the *Kasse* or *Kathe* of the Burmese. It is situated between lat. 23° 49' and 25° 41' N., and long. 93° 5' and 94° 32' E. The population of the valley and surrounding hills is estimated to be about 74,000 hillmen and 65,000 Manipuris. It is bounded to the W. by Cachar and the Naga Hills, to the N. by the Naga Hills Agency and independent Naga tribes, to the E. by the Naga tribes and Burma, and to the S. by Kuki tribes. It has an area of 7600 square miles, of which 7000 square miles are mountainous lands, inhabited by various hill tribes, speaking at least 20 different languages.

The valley part of Manipur is the centre of the chain of valleys which connect India and Burma, having to its east and west those of Kubbo and Cachar. The valley is 2570 feet above the sea. Much of the valley is at all seasons covered with water. It seems indeed at one time to have formed a large lake, and the piece of water in the south, called the Logtak, appears to be the rapidly filling remnant of it. The valley seems originally to have been occupied by several tribes, the principal of which were named Koomul, Looang, Moirang, and Mei-thei, all of whom came from different directions. For a time, the Koomul appear to have been the most powerful, and after its declension, the Moirang tribe. The principal is now the Mei-thei, next the Phoong-nai, after whom the Teng-kul, the Ayok-pa, the Kei, the Loeo, and Muhammadan. The Mei-thei population is divided into four parts, called Punrah, which are designated in the order of their seniority,—Ka-phum, Lai-phum, Ahull-ooop, and Nihar-ooop. The Loeo pay tribute, and is considered so inferior that the name Mei-thei is not given to it.

The Manipuri native tribes on the south of the valley of Assam are the Manipuri, Songpu, Kapwi, Koreng, Maram, Champhung, and Luhuppu. They are bounded on the east by the Shan of the Kynduayn, and on the N., S., and W. by the Naga and Heuma. Indeed, it may be doubted whether there is any marked transition from the Manipuri tribes and dialects to those of the Southern Naga on the one side, and those of the Yuma range and the Blue Mountain on the other. The Meing speak a language of Sanskrit derivation. They are now in a servile condition, performing the duties of grass-cutters to their conquerors. The Maibee are priestesses of an order said to have been instituted many hundreds of years ago by one of the royal princesses. The oldest family of Brahmans in Manipur is called Hungoi-bun, from Hungoi, a frog, assigned as a nickname to the first Brahman, because he astonished the Manipuris by the frequency of his ablutions.

The Manipuris are distinguished for their enthusiastic love of horses, and skill in equitation over all the neighbouring tribes. Their breed of small horses is celebrated, but it is said they are fast dying out. The great national game of the Manipuri is hockey on horseback. The principal national festivals are the Hiyang, the Lumchail, and the Hanchong, at which the national game of hockey, with boat racing and foot racing, are the chief attractions.

The inhabitants of the hills around the valley of Manipur in the west are known under the general appellation of Naga and Kuki.

The marshes of the south, in the vicinity of the Logtak, afford a retreat to serpents of a formidable size, and the whole valley of Manipur is much infested by them. Some of them are exceedingly active and bold, as the Tanglei. It is fond of ascending bamboos, along the branches of which it moves with great velocity, and if enraged, throws itself from an extraordinary height upon the object of its anger. Its bite is said to be mortal. This, added to its great activity and fierceness, makes the Tanglei an object of dread.—*Dalton's Ethnology; M'Culloch's Records.*

MANIS AURITA. *Hodgson.*

M. Javanica, *Blyth.* | M. pentadactyla, *Hodgson.*

The Ling-li of the Chinese is the scaly ant-eater. The genus *Manis* belongs to the order Edentata, in which also are classed the Tardigrada or Sloths and the Effodientia or Burrowers, the family Manididae being the Pangolins. This manis occurs in Sikkim, and extends thence through the Indo-Chinese countries into China itself; the Chinese name means the jungle carp. It is sold in the markets of Canton, where its flesh is considered excellent and its scales medicinal. Dr. Gray described this species as *Pholidotus Dalmanni*.—*Jerdon.*

MANIS JAVANICA. *Desmarest.*

M. leucura, *Blyth.* | Chum or scaly hill borer.
Chun-shau-cap, . CHIN. | Pangolin, . . . JAV.
Lingli or hill carp, . . .

Inhabits Burma, the Malayan Peninsula, several parts of China, and islands of the Archipelago.

MANIS PENTADACTYLA. *Linn.*

M. crassicaudata, *Griff.* | M. inaurita, *Hodg.*
M. macroura, *Desm.* | *Pangolinus typus, Less.*
M. brachyura, *Erzleb.* | *Pholidotus Indicus, Gray.*
M. laticaudata, *Illeg.*

Shalma, . . . BAORI.	Armoi, . . . KOL.
Kat pohu, . . . BENG.	Kauli mah, . . . MAHR.
Bajra kapta, . . .	Kowli manjra, . . .
Ban-rohu, . . . DEKH.	Kassoli manjur, . . .
Sillu, Sal, Sallu, . HIND.	Keyot-mach, RUNGHIRE.
Sukun-khor, . . .	Aluva, Alavi, . . TEL.
Bajar-kit, HIND., SANSK.	Thiarya, . . .

This manis, or Indian scaly ant-eater, the common pangolin, is 26 inches long, tail 18 inches. It is nowhere abundant, but is found throughout the whole of India, and into the Lower Himalayas and Nepal. It walks with its fore feet bent over, and with its back conversely curved. It lives on insects, the white ant, but cannot be kept alive in captivity.

The manis burrows in the ground, in a slanting direction, to a depth of from 8 to 12 feet from the surface, at the end of which is a large chamber about 6 feet in circumference, in which they live in pairs, and where they may be found with one or two young ones about the months of January, February, and March. They close up the entrance of the burrow with earth when in it, so that it would be difficult to find them but for the peculiar track they leave. A female that Mr. Elliot kept alive for some time slept during the day, but was restless all night. It would not eat the termites or white ants put into its box, nor even the large black ant (*Myrmica indefessa, Sykes*), though its excrement at first was full of them. But it would lap the water that was offered to it, and also conjee or rice water, by rapidly darting out its long extensible tongue, which it repeated so quickly as to fill the water with froth. When it first came it made a sort of hissing noise if disturbed, and rolled itself up, with the head between the four legs, and the tail round the whole. The claws of the fore feet are very strong, and in walking are bent under, so that the upper surface is brought in contact with the ground; its gait is slow, and the back is curved upwards. After its death a single young one was found in it (September 15th), perfectly formed, and about 2 inches long. The marks of the future striated scales were distinctly visible, and its long tongue was hanging out. The tongue of the old one was 12 inches in length.

narrow, flat, fleshy to the tip, the muscle along the lower surface very strong. The length of the animal was 40 inches; the weight 21 lbs.—*Jerdon; Elliot.*

MANISURUS GRANULARIS. *Linn.* *Peltophorus granularis*, *Beauv.* A plant of the south of India used in medicine. Roxburgh notices also *M. myurus*, *Linn.*, the Nalla punuku of the Teling.

MANJARABAD, a taluk in the Hasan district of Mysore. The hills of Manjarabad afford some of the most beautiful scenery in India. Forests of magnificent timber are broken by green glades, and overhung by precipitous rocks. The soil is fertile, and rice is grown in abundance on the terraced slopes of the valleys. Coffee was introduced about the middle of the 19th century. By the latter quarter there were 155 estates in the taluk owned by Europeans, occupying 21,000 acres, and 9500 native holdings, covering 9000 acres.—*Imp. Gaz.*

MANJERA, an affluent of the Godavery, rises in lat. 18° 44' N., long. 75° 30' E., runs S.E., S.W., into Godavery. Length, 330 miles. It receives the Thairnya, 95 miles; Narinja, 75 miles; Munnada, 100 miles. About 11,000 square miles are drained. While flowing through arid granitic plains, it obtains but a scanty addition of water, except during the rainy season.

MANJ'H or Manjha, the circle of village land beyond the bara or goind lands. Manjha also means alluvial land.

MANJHA, or the middle land, is the country and people around Lahore. It is a term applied to the southern part of the Bari Doab, near Lahore and Amritsar, but vaguely includes all the Sikh district and people north of the Sutlej. Ganj-i-bar is a bald tract in the central dorsal plateau in the Manjha or middle part of the Bari Doab. The soil of the Ganj-i-bar is intensely arid, often saline, and produces only sal and some salsolaceous plants, with a few bushes of jhand. The men in the Manjha or Bari Doab, between the Ravi and Beas, are reputed to be the bravest and most warlike of the Panjabis. The Sikhs who inhabit the country between the Sutlej and Junna are called Malawa Singh, a title conferred upon them for their extraordinary gallantry, under their leader Banda, the successor of Guru Govind, the founder of the Sikh nation. The Malawa Sikhs are almost all converts from the Hindu tribes of Jats and Gujars.—*History of the Panjab.*

MANJHI, a boatman, master of a traffic or cargo boat on the Ganges, the steersman of a boat. Also the title of the headmen of the Santal villages.

MANJOOSER, the patron deity of Wootai in China. At the monastery of Shoo-siang-si, S.W. from Poo-sa-ting, he is represented by a large gilt figure seated on an immense lion.

MANKA. In the 8th century, a Hindu physician who went to Baghdad and practised at the hospitals. Manka and Saleb were the physicians of Harun-ur-Rashid.

MANKAH, pl. Manke. **HIND.** Beads or cut agates, pebbles for signet rings.

MANKARI, nobles, persons entitled to honour or distinction.

MANKIR, according to Muhammadanism, an angel who, with another named Nakir, questions the dead as to their past life. A Shiah about to

die should say in the name of God, the Prophet, and the Imams, 'I confess that God is my Lord, and Islam my religion, and Mahomed my prophet, and the Koran my book, and the Kaba my kibra, and Ali my Imam, and also that the twelve Imams are my guides. O merciful God, this confession I deliver to thee, the Prophet, and the twelve Imams; release me in the grave when Mankir and Nakir come, O most merciful.'

MANKUHA. **ARAB.** A married woman; amongst Indian Muhammadans, a woman married by the simple marriage Nikkah ritual. They take a lower social place than the wives married by the Shadi ceremony; the one is called a Nikkah wife, the other a Shadi wife.

MANMATHA, a name of Kama, the Indian Cupid. He was burnt to ashes and revived by Iswara. He has various names. Manmatha bana chettu, **TEL.** Ixora bhanduca, **R.**; also Jasminum sambac. Its literal meaning is Cupid's arrow tree.

MANNA.

Mun, Turanjabin, . . .	ARAB.	Tsau-mib, . . .	CHIN.
Kudrat-ul-halwassi, . . .		Manne, . . .	FR.
Ching-ju, . . .	CHIN.	Mannasche, . . .	GER.
Kan-kau, Kan-lu, . . .		Gambing, . . .	JAV.
Kan-lu-mib, . . .		Kapur-rimba, . . .	MALAY.
Tse-mib, . . .		Shir-i-khist, . . .	PERB.

The manna of the south of Europe is the concrete exudation from a species of ash, the *Fraxinus ornus*, *Linn.*, but sweetish secretions are exuded by some other plants of those regions, and are usually considered to be kinds of manna. *F. gargavica* and *F. rotundifolia*, *Lam.*, are also said to yield it. *F. florifera*, the *Ornus florifera* or flowering ash tree, grows in the mountains of the south of France, and *F. rotundifolia*, the *Ornus rotundifolia* or round-leaved manna ash tree, is a native of Calabria and Sicily. Of the manna obtainable in Central Asia, several kinds are used in native medicine. One of these, in the form of small dark grains, is the turanjabin, said to be derived from the *Alhagi maurorum*; another, somewhat whiter, is the shirkhist or shakli, which is believed to be produced in Kābul by a species of *Fraxinus*, but Bellew says it is from the Siah chob or blackwood tree. The shirkhist is the best kind known in India.

The shakr-ul-ashar or shakar taghar is a round cell resembling in shape a small gall, and is said to be produced by the puncture of an insect on the *Calotropis procera*, the akh or mudar; it has a sweet taste. A fifth kind is mentioned as being obtained on an umbelliferous plant. Manna of the tamarisk, in China is called Ching-ju, **CHIN.** Turanjabin, in the Kābul bazars, is in small round tears, while shirkhist is in large grains, irregular masses, or flat cakes.

The manna of ancient Assyria (*Exodus* xvi. 15, 31, 33, and 36; *Numbers* xi. 7), in Turkish called Kudrat-ul-halwassi, or the divine sweetmeat, is found on the leaves of the dwarf oak, and also, though less plentifully, and scarcely so good, on those of the tamarisk (the Tarfa of the Arabs), and on several other plants. It is collected in the early part of spring, and again towards the end of autumn; in either case the quantity depends upon the rain that may have fallen, or at least on the abundance of the dews, for in the seasons which happen to be quite dry, little or none is obtained. People go out before

sunrise, and, having placed cloths under the oak, larch, tamarisk, and other shrubs, the manna is shaken down from the branches. The Kurds eat it in its natural state as they do bread or dates, and their women make it into a kind of paste, being in this state like honey, and it is added to other ingredients used in preparing sweetmeats, of which all oriental nations are fond. The manna is partially cleaned, and carried to the market at Mosul in goat-skins, and there sold in lumps, at the rate of 4½ lbs. for about 2½d. But, before using it, it is thoroughly cleaned from the fragments of leaves and other foreign matter by boiling. In the natural state, it is of a delicate white colour, or, as in the time of the Israelites, like coriander seed (Numbers xi. 7), and of a moderate but agreeable sweetness, and Calmot compares it to condensed honey. Burkhardt, however, says it is of a dirty yellow colour, slightly aromatic, of an agreeable taste, sweet as honey, and, when eaten in any quantity, it is purgative; he adds that the time of collecting it lasts six weeks. Under the Persian names gaz or gazu (Gaz, PERS., tamarisk), a glutinous substance like honey, deposited by a small green insect upon the leaves of the oak tree, is much used for making sweetmeats in Persia. It is a manna of the chemist. Gazanjabin is a manna produced on branches of the *Tamarix Indicus* by the punctures of the *Coccus mannifera*. This is often called Arabian manna, to distinguish it from turanjabin, Persian manna, and from the shirkhist or Khorasan manna, and from Sicilian manna.

Manna of Australia is obtained from the *Eucalyptus viminalis*, Labill., the Yarra yarra of the natives. It exudes from the places bored by the Australian *Tettigonia*. It differs from the European mannas, and is a kind of sugar. Another saccharine secretion occurs in Australia and Tasmania, principally on the leaves of the *Eucalyptus dumosa* or mallee tree. It is the Leup of the natives, and forms on the leaves small conical cups of gum covered with white sugary hairs. It is a secretion from an insect of the genus *Psylla*, and is very nutritive. It assumes a crystalline structure when dried. Dr. T. L. Phipson says (p. 89) a sort of manna is produced in Australia and Tasmania on the *Eucalyptus resinifera*. A sweet substance exudes from the leaves, and dries in the sun's rays, and a strong wind shakes it down like a snowfall.

A manna from the *Pinus cedrus* of Lebanon sells for 20 to 30 shillings an ounce.

A manna sugar is obtained from *Chamerops humilis*, also from *Pinus Lambertiana*, and from the *Quercus mannifera* of Kurdistan.—*O'Sh.; Powell; Wellsted; Royle, Ill.; Ferrier, Journal; MacGregor; G. Bennett, Gatherings; Dr. T. L. Phipson.*

MANNA-NIR, in Malabar, from Manna, a seat, and Nir, a waterpot, alluding to the right of carrying the bridegroom through the street on the marriage day.

MANNARGUDI, a small town situated in lat. 10° 40' 10" N., and long. 79° 29' 30" E., 24 miles south-east of Tanjore. There is a fine pagoda with a popular car festival.

MANNO-DHARA. KARN. Labourers who execute heavy work, such as heaving blocks of stones, constructing earthen walls, etc.

MAN OF WAR BIRD, species of the genus *Phaeton*, *Ph. rubicanda*, *Ph. candidus*.

MANOONGAN, *Manoongan putih*, and *Manoongan manga* are three plants of Borneo yielding caoutchouc. Their stems are 50 to 100 feet in length, and rarely more than 6 inches in diameter. The fruit is yellow, the size of an orange, and containing seeds as large as beans, each enclosed in a section of apricot-coloured pulp, highly valued by the natives. Other plants of Borneo yielding the gutta of commerce, besides the *Isonandra*, are species of *Ficus* and *Willughbeia*, that of the latter being the gutta soosoo.—*Burbidge.*

MANOTIDAR, in the Bombay Presidency, a money-lender, a money-broker.

MANPAN. MAHR. Honorary and prescriptive rights claimed by the hereditary patel and other village office-bearers at weddings, and the right of precedence at processions; the rights and privileges enjoyed by the patels of Mahratta villages at the three Hindu festivals of the Pola, the Dasara, and the Holi. The Pola is held on the day of the new moon of the month Srawan or Bhadrapad. The bullocks of the whole village move in procession under the 'toran' or sacred arch dedicated to Maruti, which is made of twisted 'mol' grass, and covered with mango leaves. The guri, or sacred pole of the patel, is borne aloft to the front; the patel gives the order to advance, and all the bullocks, his own leading the way, file under the toran, according to the respective rank of their owners. The villagers vie with each other in having the best painted and decorated bullocks, and large sums are often expended in this way.

At the Dasara, a male buffalo (hela) is provided at the village expense for a solemn sacrifice to the goddess Durga. The buffalo is taken up to the flagstaff (jheenda) in front of the village town hall (chouri), where it is slaughtered by the patel's own hand, and then carried away by the Mhars to be eaten.

At the Holi, the patel and astrologer (joshi) meet and invoke the demons (rakshas) in whose honour it is held. The patel then lights the sacred fire. He provides the red powder (gulal) and other accessories of the festival.

MANSA, a Native State of Mubikanta, in the province of Gujerat, Bombay. It is situated in the Sabarkanta subdivision, and surrounded by the Gaekwar's territory. The chief is descended from the Chaura dynasty, one of whom founded Anhilwara Patan in 746.—*Imp. Gaz.*

MAN SAB. ARABO-HINDI. An office or dignity, a military title of rank conferred by the Moghul government. Mansab-dar, the holder of a mansab; at Muhammadan courts, a military or civil officer.—*W.*

MANSAROVARA LAKE or Mansaraur or Mannsa-Saras, a lake in Hundes, is in Tibetan called Tsho-ma-phan. It is the same with the Bindu Sarovara of Hindu mythology, produced from the heart of Brahma. It is called Anandat. Four rivers are supposed to spring from it, and that it is near Su-meru, the abode of gods, the Vindhyasaras of the Puranas. It is a place of Hindu pilgrimage of peculiar sanctity. There are several Buddhist monasteries on its banks.—*As. Res.*, 1816, xii.

MAN SINGH, a ruler of Jeypore, who ascended

the throne A.D. 1592. He commenced a palace at Amber, which Siwai Jye Singh finished. He also erected an observatory at Benares, and a temple at Bindraban. He was one of Akbar's generals. His sister was married to Jahangir, and was the mother of prince Khuru.—*Cal. Rev.*, January 1871.

MANSUR of Hallaj, a religious reformer of the Shiah sect, who constantly repeated the Arabic assertion Ana'l Hakk,—I am the Truth. He was executed for his temerity, A.H. 306, A.D. 919.

MANSUR, a khalif who built Baghdad, A.D. 763, out of the ruins of Ctesiphon.

MANSURA. Brahmanabad was the capital of Lower Sind in the time of the dynasties that preceded the Arabs, and is supposed to be the modern Hyderabad; but it seems to have intermediately borne the name of Mansura after the Arab conquest. Mansura, Alor, and Multan are places of note in the valley of the Indus, noticed by early travellers to India.—*Elliot*.

MANSURCOTTAH and Calingapatam, in Telingana or the Northern Circars, are increasing seaports. Aska is a large sugar manufacturing place.

MANTAKHAB-ut-TAWARIKH, a book finished in the end of the fortieth year of Akbar's reign. It was written by Abdul Kadar of Badayun, and is a history of the Muhammadan kings of India.

MANTAPA, the porch in front of a Hindu temple, the part of the building known in architectural nomenclature as the 'pronaos.' The word is also written Mundaf, also Mantapam. The mindra or cella, in Hindu temples, contains the statue of the god. The Mindra, dedicated to the linga, is a double-roofed Gothic building, the body square, but the upper part short and tapering to a point. It contains one, two, three, or more rooms, about three cubits by four, with a porch in front for spectators. The centre room contains the lingam. Mindra, says Ward, means any edifice of brick or stone; but custom has appropriated it almost exclusively to the temples of the lingam. Figures of the deities are placed there on being brought from the mindra on days of festivals for worship.—*Ward's Hindoos*, ii. p. 1; *Cole. Myth. Hind.* p. 390.

MANTIS. Several species of this genus of insects occur in India,—*M. superstitiosa*, *M. aridifolia*, and *M. extensicollis*. *M. tricolor*, *Nietner*, the mantis of the coffee tree, is green, lower wings reddish, with large blackish spot at the posterior margin. The female is 1 inch long, with 1½ inch of an expanse of wings. The male is considerably smaller. The eggs are deposited upon coffee leaves, in cocoon-like masses of ½ of an inch in length, but drawn out further at each end. The Mantis religiosa, amongst the peasants of Languedoc, is held almost sacred; they call it the Prega Deori or Prie Dieu.

The Mantida are usually of the colour of the leaves or foliage amongst which they dwell. They are all predatory. See Insects.

MANTRA. SANSKR. Counsel; hence Mantri, a counsellor. In Hinduism, a prayer, an invocation, a charm. Mantra is from Matr, to repeat in the mind, and is applied to a formula or litany in use in invocations of the Hindus. There are many of these. The great mantra of the Brahmans is styled the Gayatri, and is deemed the holiest verse of the Vedas; it is an invocation to the sun. Its words are in Sanskrit, and are O'm! Bhūrbhuvā

ssuvāhā, O'm! Tatsa vit'hru varēnyām; B'hargo devāsya dhimahi dhiyo yonaha pracho dayath,—the translation of this prayer being O'm! Air, Earth, Sky. O'm! let us meditate on the supreme splendour of the divine Sun: may he illuminate our minds. That of the Srisampradaya or Ramanuja sect of Vaishnavas is said to be 'O'm! Ramaya namah,' O'm! salutation to Rama. A mantra generally consists of the name of some deity or a short address to him; it differs with various sects, forms the chief ceremony of initiation of the Hindus of all sects, and is communicated by the teacher to the disciple in a whisper; and many mantra, or formulæ of prayer, are supposed to have a magic power. Six descriptions of charms or mantras are known in Gujerat, which are described in a series of works forming the scriptures on the subject, or the Mantra Shashtra. A charm called Marun Mantra has the power of taking away life; Mohun Mantra produces ocular or auricular illusions; Sthambhun Mantra stops what is in motion; Akurshun Mantra calls or makes present anything; Wusheekurun Mantra has the power of enthralling; and Oochatun Mantra of causing bodily injury short of death. Mantra drooma is from Manan, to meditate, and Drooma, a tree.—*Rasamala, Hindu Annals*, ii. p. 403. See Gayatri; Hindu.

MANU, from the Sanskrit root Manu, to think, in Hindu mythology is a titular name applied to fourteen progenitors of mankind, each of whom ruled the earth for a manwantara or period equal to 4,320,000 years. The names of the fourteen were Swayambhuvā, Swarochisha, Auttami, Tamasa, Raivata, Chakshusha, Vaivasvata or Satyavrata, Savarna, Daksha-Savarna, Brahna-Savarna, Savarna or Rudra-Savarna, Rauchya, and Bhautya. Manu Vaivasvata of the present period, the seventh Manu, is represented as conciliating the favour of the Supreme Being by his piety in an age of universal depravity. He is noticed in the Satapatha Brahmana, which contains an important legend of the deluge, of which he was warned by a fish, and told to build a ship, which the fish guided. Manu alone was saved, but Ida was produced from his side, and the two were the parents of a new race of men. He is the Noah of the Hebrews.—*Warren, Kala Sanhita*.

MANU is the name given to the author of the Manava Dharma Sastra, comprising the Hindu system of duties, religious and civil. It is called the Institutes. Mr. Hunter fixes the date of Manu's Code as B.C. 500; B.C. 900 used to be assigned to this ancient work, and some have recently brought it down to A.D. 1200. It relates to Hinduism and the laws and customs of the various races following some form of Hinduism, and therefore seemed to Chevalier Bunsen to be a patchwork. It undoubtedly preceded, or was at least contemporary with, Buddhism. But it is posterior to Kapila, for the philosophy is that of the Sankhya to a certain extent, and it is probable that the 6th century B.C., the date given by Professor Wilson as that of parts of this compilation, is the correct one, and the book as it has come down to us seems merely an abbreviation of a far larger and more ancient one.—*Elphinstone* says B.C. 900. It opens with an account of the creation, and goes through the category of every difficulty in which a man, a state, or a community can possibly be found. It embraces the whole duty

of man and of men, religious, political, social, domestic, and private. The duties of monarchs are laid down with as little ceremony as those of the humblest panchala. It was verbally translated from the original, with a preface by Sir William Jones, about A.D. 1770, and this, with the subsequent Sanskrit text by Professor Haughton, and the translations of Haughton and Loiseleur Deslongchamps, made this book known in Europe. Professor Wilson is of opinion that the Institutes of Manu, though disfigured by interpolations, and only cast into their present form in about B.C. 200, are still entitled to date many authentic portions of their text from B.C. 800, which was the estimate of Sir William Jones. In fact, the Institutes are a compilation of the laws of very different ages, races, and states of society. Many are word for word the same as the Sutra of some of the oldest rishi, and there are other unquestionable proofs of high antiquity. The people of Bengal, Orissa, and the Dravira race of the south were not Hindus when one passage was written, and Dr. Caldwell places Dravira civilisation through the Brahmans six or seven centuries after Christ. There is no mention of, or allusion to, Siva or Krishna, which places parts of the work before the Mahabharata; there is evident familiarity with the Vedas, persons and legends being alluded to not found anywhere else. All such passages we could consent to consider at least as old as B.C. 800. On the other hand, there are many references to the merit of Ahinsa, 'non-injury of animal life,' and these are probably later than Buddhism; and there is mention of the China race, a name that sinologues say is not older than two centuries B.C. It is therefore believed that the work may have been put together about that time, though very much of it is a great deal older. The present estimation of the laws of Manu is somewhat different from that of Sir William Jones. Many of the laws are doubtless extremely ancient, in the same way that the laws 'Thou shalt not steal' and 'Thou shalt not kill' date back in all probability to the primeval period when man first became a living being. It thoroughly recognises caste. It inculcates the worship of inferior gods and goddesses, of the elements, and of the heavenly bodies, and the caste of Brahmans is to be held in great reverence.

It is not included amongst the Sutra or sacred revelations, but amongst the Smriti or traditions. Indeed, the term Smriti implies recollections, a name which seems to indicate pretty precisely the character of the code of Manu. There is a form and completeness about the work which indicates that it was compiled long after the age which produced the Pentateuch; and, judging from its intensely Brahmanical character, we should place it nearer to the Puranic age than to the period when the elemental worship, as exhibited in the Vedas, was the religion of the people of India. In a word, the laws of Menu are not to be illustrated by the Vedas, but by the Puranas; they belong not to the religion of the patriarchs, but to that of the priests and kings. The Vedas exhibit the oldest form of the Hindu religion with which we are familiar, and that was nothing more than the worship of the elements, of Agni or fire, of Indra or the rain-giving firmament, of Varuna or the waters, of Vayu or the wind, and of some minor deities. Amongst the

first items of information we receive on Hindu history is in a passage in Manu which gives us to infer that the residence of the Aryan race was at one time between the rivers Saraswati (Sarasoty) and Drishadwati (Kaggar), a tract about 100 miles to the north-west of Dehli, and in extent about 65 miles long, and from 20 to 40 broad.—*Prin. Ind. Int.* p. 223; *Elphinstone, History of India*, i. p. 388.

MANUEL FARIA DE SOUZA, author of *Asia Portuguesa*, etc., Lisbon 1666.

MANUFACTURES of the south and east of Asia are largely articles for personal or domestic use. Compared with the industries of Europe and America, there are no great shipbuilding establishments, or metal foundries, or glass-works. The people of India make excellent glass, but they turn out only prettily-tinted bangles for women's bracelets. Candles, clocks, watches, machinery, and mill-work are all imported from foreign countries, as also are much of their cotton and silk and woollen goods, porcelain, hardware, malt liquor, and paper.

In 1882-83, the British India total imports from and exports to foreign countries were respectively to the value of 65 and 84 krur, as under:—

Imports, Rs. 65,55,20,362, viz.

Merchandise, Rs. 52,09,86,720 | Treasure, Rs. 13,45,33,642

Exports, Rs. 84,52,67,860, viz.

Merchandise—

Foreign goods,	Rs. 2,80,24,163
Indian produce and manufactures,	80,59,82,631
Government stores,	8,42,578
Treasure,	1,04,18,488

The following are the details of the imports and exports of manufactures:—

British India Imports, 1882-83—

Apparel,	Rs. 76,97,371	Malt liquor, beer,	Rs. 1,33,46,108
Cabinetware,	5,07,736	porter,	1,34,23,985
furniture,	2,11,010	Machinery, mill-work,	17,44,301
Caoutchouc manufactures,	8,89,749	Matches, lucifers,	1,25,631
Candles,	5,12,134	Mats,	4,61,38,588
Carriages, carts,	9,23,937	Metals, brass, copper, iron, lead, mercury, steel, tin, zinc,	1,68,625
Clocks and watches,	2,35,797	Oil-cloth, floor-cloth,	23,44,502
Corks,	24,81,00,625	Paints, colours, materials,	33,42,989
Cotton goods, twist and yarn,	17,00,022	Paper, paste-board,	6,33,356
Earthenware, porcelain,	5,64,183	Perfumery,	3,46,003
Fireworks,	14,00,923	Printing materials,	1,11,64,342
Flax manufactures,	48,36,845	Silk and manufactures,	97,77,693
Glass,	79,17,912	Soap,	6,04,117
Hardware,	15,03,645	Stationery,	14,75,814
cutlery,	20,59,477	Sugar,	1,08,69,610
Instruments, apparatus,	30,69,858	Ten,	19,30,515
Ivory manufactures,	3,97,938	Tobacco,	8,36,087
Jewellery, plate, precious stones,	19,58,873	Toys,	10,68,167
Jute manufactures,		Umbrellas,	23,28,292
Leather and manufactures of,		Wool manufactures,	98,48,285

British India Exports, 1882-83—

Apparel,	Rs. 5,79,148	Hemp manufactures,	Rs. 3,176
Books,	2,12,343	Ivory manufactures,	15
Cabinetware,	2,01,872	Jute manufactures,	1,48,78,304
Cair manufactures,	14,20,884	Oils,	42,52,768
Cordage,	2,84,106	Opium,	11,48,13,704
Cotton goods,	2,57,20,616	Perfumery,	67,729
twist, yarn,			

MANUFACTURES.

Silk manufac- tures, . . .	Ra. 27,65,754	Wool manufac- tures, shawls, Ra. 7,71,718
Sugar, . . .	80,87,751	Wool manufac- tures, others, 8,11,776
Tea, . . .	3,69,95,085	
Tobacco, . . .	1,64,076	

The people of several of the races in the south and east of Asia are skilled in many of the industrial arts, and they are diligent in their respective callings, but they are not producing the manufactures needed by foreign nations. In field and garden cultivation, in the economy of water, and the utilisation of manures, no nation excels the Chinese, and they are stimulated by the example of the imperial family, the head officials annually ploughing the first field, and the empress and her attendants taking an interest in the silk-worms and their produce. In spinning, in the weaving of shawls and carpets, and dyeing of cotton and silk stuffs, of such kinds as are suitable for the clothing that they wear and to their habits, the weavers and dyers in South-Eastern Asia are not approached by any European race. Nevertheless, as will be seen by the above lists, India has to import Rs. 24,81,00,625 worth of cotton goods; but yet holds its own in the finer artistic work of its mushroo and kim-khab, its satins and brocades of Ahmadabad and Benares, and its delicate muslins of Dacca and North Arcot. The shawls of Kashmir and the Panjab have no rival; the carpets of Persia, Kirman, and Turkestan are readily bought by the wealthy of Europe, and the Rampur chadars from the Himalaya are to be purchased in the fashionable shops of London. It is the highly-finished, machine-made articles of Europe and America that are imported into India. The manufactures of Europe have a mechanical perfection of finish, which is quite out of place in the bold free-hand composition of colour and form characteristic of the best native work. The barbaric splendour of Indian jewellers' work, in jewellery proper and as seen on arms and armour, is due to the lavish use they make in it of diamonds, rubies, emeralds, and other gems. Their work being manual, they need use only flat diamonds, mere scales so light that they will float on water, and rubies and emeralds full of flaws,—stones, in fact, which have no value as gems. But European jewellers' work necessitates the use of gems only of the purest water, and far too costly to be used as mere decoration, or except for their own effect solely.

Cotton-weaving is a very ancient industry of India. Cotton cloth has always been the single material of Indian clothing for both men and women, except in Assam, Burma, and China, where silk is preferred. The author of the *Periplus* enumerates a great variety of cotton fabrics among Indian exports. Marco Polo, the first Christian traveller, dwells upon the cotton and buckram of Cambay. But the productions of the handlooms of to-day are undersold by the machine-made fabrics of Europe; and without foundries and mill-works the cost of erecting even a spinning mill in India is treble what would be required for one in Great Britain, and the erection of weaving mills has been almost avoided. The people of India are importing twist and yarn, and are weaving these into the fabrics they require. These are chiefly the stout cloths used by the labouring classes. The cotton carpets of India, called *shatranji* and

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darri, are usually white, striped with blue, red, or chocolate, and sometimes ornamented with squares and diamonds. Their woollen or pile carpets, known as *kalin* and *kalicha*, have attained so much popularity in Great Britain by reason of the low price at which they can be placed on the market.

Europe and America recognise the artistic skill of the goldsmiths and silversmiths of India; also that of ivory carvers of Travancore and China, and that of the lacquer workers among the Shans of Burma, China, and Japan; the enamellers of Jeypore, the *koftgari* inlayers of the Panjab, and the *tutanague* inlayers of Beder. The pith models of Madura are much admired, as likewise have been the horn and woodwork armour, horse and elephant trappings of India. These and much of the loom-work hold their own among the people.

In the N.W. of India, in the vicinity of the Himalaya, blanketing, called *loee*, is made of red and white patterns at Bulrampore, Muzaffarnagar, Rampur, and Gujerat. The Rampur chadar is well known in Britain for the remarkable warmth, lightness, and softness of its texture. It is said to be made of pashm wool.

The namad or namda felts are largely made in all the western parts of India, also in Sind and Baluchistan. Throughout the greater part of India, every agricultural labourer has a cumbli or coarse blanket. The usual mode of wearing them is to bring the two corners together, one overlapping the other, and the end being tucked under, thus forming a hood which is placed over the head, and protects the shoulders and the body in the day, and at night they are converted into bedding, one-half doing duty as a mattress, the other as a blanket or covering. The *puttoo*, a woollen fabric of Kābul, is made from the under hair of goats, and when old is re-made into *malida*, a mixed woollen fabric.

The refined art of India is to be seen in its silver work, filigree or gilt, chased or engraved. Its *koftgari* work of iron or steel, inlaid or otherwise ornamented with gold, is mostly produced in the Panjab; also the Dekhan, Beder, and other work inlaid with silver.

Mr. Pollen describes the goldsmiths' work as precisely similar, in many forms, to the old Etruscan goldsmiths' work as it has been recovered for us from tombs in Italy and elsewhere. The methods of working gold, now lost in Europe, are still in full use in parts of India; particularly that of fretting gold by soldering fine spines or hairs of gold wire as delicate in fact as thistle-down, yet done by unscientific workmen possessed of certain chemical secrets, which they put into practice by traditional usages. *Koftgari* work is iron chased with a tool, into which soft gold, very pure, is afterwards hammered, the rough iron taking, by this means, permanent hold on the softer metal, which gets beaten into the fine scratches and hollows. The most imposing use of this material is in the decoration of arms and armour. It is also used to decorate buckles, clasps, work-boxes, caskets, arms, head-pieces, sword-blades, sword-hilts, and various small objects for European use.

Baroda artisans also ornament iron and steel by hammering in gold, not as in the *koftgari*, but in discs or masses, polishing afterwards in the lathe.

Cutch and Ahmadabad is famed for its repoussé work.

The inlaid work of Beder is usually silver, sometimes gold, inlaid on a black amalgam in bold, flat patterns; sometimes seemingly it is of pure tin, which has all the display of silver. The bedri work of Beder is applied largely to the domestic utensils in use by the people, except where Europeans give special orders. It is of black metal (an amalgam), inlaid with silver and gold, in bold, flat patterns. It is made by casting the vases; the core is first formed, then a vase of wax is formed round it, and a mould over that. The wax is melted out through holes made on purpose, and this leaves a mould for the vase. When the vessel is cold, it is chased or roughed out in designs, and the soft silver or gold gently hammered into it.

The goldsmiths' and jewelled productions of India are minute in an extraordinary degree, of elaborate handiwork, obtainable only where labour is cheap. In the enamels of Jeypore, for example, gold itself is completely invested with enamel colours, some of them encrusted with precious stones. For translucent enamels, that is, enamel colours painted on gold (generally), or gold-leaf, which gives light and splendour to the colours, Jeypore is the finest school. A shield of rhinoceros hide, decorated with a border and bosses of this translucent enamel, was sent from Cutch to the Exhibition of 1851.

Brass and gilt basins are covered with a diaper of ornament. Brass work of Moradabad, Jeypore, and Nagpur has the body of the work in brass, and pure tin is hammered over it, leaving spaces of the ground as ornament. The polished surface of the tin is so white and bright as to have the appearance of silver of plain manufacture.

Silver filigree work, gilt, chased, and engraved, is produced in many parts of India and of Burma; the koftgari work of iron and steel, inlaid or otherwise ornamented with gold, is chiefly an art of the Panjab, employed on shields, sword-hilts, necklaces, bracelets. In all these, fineness and elaboration, both in design and workmanship, are held in the highest esteem, and secondary qualities of this kind produce good results in small articles of luxury. It represents the earliest metallic traditions with which we are acquainted.

In the decorative manufactures of Kashmir, designs in outline and colours are prepared for their shawl manufacturers, and in several parts of India blocks are used for printing on calicoes and on the borders of silks.

The chidree is a form of printing in Bombay, which consists in tying up the design previous to dyeing the cloth.

Brass stencil plates are used for the decoration of floors during festivals. The workman produces these stamps without drawing any preliminary outline. In one hand he holds the punch and in the other the hammer, and punches the metal as it rests on a piece of flat board until the design is completed. In use, powdered marble is passed, by a gentle tap, through the perforated plate, and leaves a white dotted outline on the floor, the design being afterwards filled in with powders of various colours. The Dewali is the best time to see these kunna drawings, but they are also much used on other festivals and weddings.

The colours of the cotton and silk sarees in use

amongst all the Hindu women of the south of India show great skill in dyeing. The loongs of Sind have also attracted much praise. Bedcovers, called palempores (palang-posh), were at one time very largely exported from the east coast of the Peninsula, and are again making their way in the fashionable shops of London.

In their ivory carvings, lacquer work, and dyeing, China and Japan are in advance of all other races. The Chinese and Japanese excel in ceramic manufacture, which the caste rules prevailing in India utterly debar the Hindus from attaining to anything beyond the cheapest unglazed earthenware, and Muhammadans of India have accepted this position. They are restricted to unglazed earthen pots for holding water, pots for cooking, pans for frying or baking.

The stone vessels of Carwar are made by turning on a lathe their indurated talc or talcose slates, sometimes light grey, sometimes darker; it is an object of great curiosity. Representations of mosques, goblets, etc., are cut from it, but it is also much prized for its intrinsic merits. Pickles, milk, and other substances likely to suffer in contact with copper vessels, or to be absorbed in common pottery, are kept by careful housekeepers in these pots.

Metal workers in gold, silver, copper, brass, tin, zinc, iron, and steel, and for all articles of jewellery and articles used in Hindu work, are very numerous, and weapons of all kinds, daggers, swords, and matchlock barrels, are largely made. The larger articles being the abkhora or drinking-cup, attardan or perfume box, gulab pash, rose-water sprinkler, gulab dan or rose-water holder, the hookah, the kummul or pedestal, the pandan or betel-leaf holder, the pullye or lustral spoon, and the various kinds of lamps. The ruder wares are the gella and chumboo, water-pots, the hookah bowl, and the chillum for the fire; the handi, ghagar, or chatty for carrying water in; the mudka, topee, and towlee, cooking pots; the purrel, baking pot; the tawa, frying pan, and the thali dish.

The embroidery of Asia has been famed through ages, and still takes a high place. The chogha, made of the coarser wool of the goat and camel, is embroidered in Kashmir and the Panjab. The shawls of Kashmir and the Panjab are beautifully embroidered.

Muslin is embroidered with silk and gold thread at Dacca, Patna, Delhi, and Madras. Sind and Cutch (Kachchh) have special embroideries of coloured silk and gold. Leather work is embroidered in Gujerat. At Gulbargah and Aurangabad, velvet (makhmal) is gorgeously embroidered with gold, to make canopies, umbrellas, and housings for elephants and horses, for use on state occasions. A chadar or shawl made by order of a late Gaekwar, was composed entirely of inwrought pearls and precious stones, disposed in an arabesque fashion, and was said to have cost a krur of rupees. Although the richest stones were worked in it, the effect was most harmonious. When spread out in the sun, it seemed suffused with an iridescent bloom, as grateful to the eye as were the exquisite forms of its arabesques.—*Sir George Birdwood.*

MANUK-DEVATA or Burung-devata. MAL., JAV. Lit. bird of the gods, or bird of paradise. The high value set upon them awakened the

cupidity and the fraud of the Chinese, who made up from parrots, parrakeets, and others, artificial birds of paradise. Their various names are Manuk-devata, MAL., lit. God's birds; Burong mati, MAL., dead birds; Passaros de Sol, Portuguese sun birds; and the English name is birds of paradise. They are unknown in Ternate, Banda, or Amboyna. The Paradiseidae are a group of moderate-sized birds, allied in structure and habits to crows, starlings, and to the Australian honey-suckers, but they are characterized by extraordinary developments of plumage, which are unequalled in any other family of birds. Many naturalists arrange them into two families, Paradiseidae and Epimachidae. *Paradisea apoda*, Linn., the great bird of paradise, has a dense tuft of long and delicate plumage, which comes out from each side of the body, from beneath the wing, sometimes two feet long, very glossy, and of an intense golden-orange colour.—Wallace, ii. 267.

MANURE. Zibl, ARAB.

Khad, Khau, Eru, Pau,

HIND.

The productiveness of any soil depends principally on its natural or artificial capability of retaining or transmitting its moisture, the vehicle, at least, by which the nourishment is conveyed to plants. The soil whose constituent parts are best adapted for retaining a sufficient supply, and transmitting a proper portion in very dry weather to the plants growing in it, without holding it in injurious quantities in the time of very wet weather, is possessed of the principle of vegetation, and will be found to be of the most productive nature. The too tenacious clay soils must be made artificially friable, by drainage and the admixture of marls, sands, etc., and kept so, and be pulverized and mechanically altered, before they can become productive. Until this is done, such soils resist effectually the enriching influence of rains and dews, which merely fall on their surface, and either run off or lie there without penetrating into them. The sun and wind also may beat on them and blow over them, but they can never waken up the dormant energy that lies within; they only by their repeated attacks dry and harden the surface, crack it into irregular portions, and more firmly lock up any languid and dormant principles of vegetable life that may be within the mass. When clay is in excess, it is remedied by the application of sand, chalk, marl, or burned clay, light unfermented manures, and perfect pulverization, to make the soil friable. There are in soil eleven substances necessary for the growth of vegetables, viz. potash, soda, lime, magnesia, alumina, silica, iron, manganese, sulphur, phosphorus, and chlorine; and soil is composed of two classes of ingredients,—one, the inorganic or mineral; the other, the organic, or such as have at some time formed parts of individuals of the animal or vegetable kingdoms. Certain phosphates, though present in soil in the smallest quantity, are its most important mineral constituents, and are derived principally from the animal kingdom; and the following substances, procurable in considerable quantities in India, may be employed as manures:—Animal manure, stable manure, both fresh and old, dung of all animals; guano, pource, night-soil, bones of all animals, fresh, calcined, or merely crushed, burnt earth, dead animals' blood, and animals' hair, hoofs, horns, parings of skins, offal, urine, feathers, fish; and

the quickest way to utilize animal substances is to throw them into a stone-lined tank, with water, quicklime, and wood-ashes; the tank should be kept covered, and the liquid parts may be run off from below. Weeds, green, dry, and burnt, branches and leaves of trees both fresh and dry, the leaves of oil-producing plants and those that contain milky juices being the best, as they yield nitrogen, ammonia, and carbonic acid; rotten wood, tan-bark; straw, stubble, roots, etc.; lime, burnt shells, old mortar, gypsum, refuse of soda water, sulphuric and nitric acid, manufactures, broken bricks and tiles, silt and sand from tank and river beds, marls, soda, potash, and magnesium earth, road-dust, house-sweepings, wood-ashes, coal-ashes, burnt cow-dung, muriates, carbonates, sulphates, nitrates and acetates of potash and soda, soot, gas, liquor and sulphate of ammonia, phosphate and superphosphate of lime, tartrates and acetates of iron, refuse from dye-works, leaf-mould; leaves both green and dry, if steeped for a week in water, decay afterwards much more rapidly, and the brown liquor that comes from them is good liquid manure; the leaves should then be laid in alternate layers with earth and half-burnt weeds, and the heap should be covered with matting to prevent the escape of the moisture and gases. If watered and turned once in ten days, the leaf-mould will be fit for use in three months. Keep dung-heaps covered, and dilute liquid manure in them with one or two waters, by which the escape of ammonia will be in a great measure prevented. Liebig says a soil will reach its point of exhaustion sooner the less rich it is in the mineral ingredients necessary as food for plants. But we can restore soil to its original state of fertility by bringing it back to its former composition, i.e. by restoring to it the constituents removed by the various crops of plants. A fertile soil must contain in sufficient quantity, and in a form adapted for assimilation, all the inorganic materials indispensable for the growth of plants. It is obvious, he remarks, that we furnish the conditions essential to the formation of starch or of sugar, when we supply to the plants their necessary constituents, i.e. such as we find always present in them. The sap of such plants as are rich in sugar or in starch contains much potash and soda, or alkaline earth. As experience proves that a deficiency of alkalies causes a deficient formation of woody fibre, sugar, and starch, and that, on the contrary, a luxuriant growth is the consequence of their abundant supply, it is obvious that the object of culture, viz. a maximum of crops, cannot be obtained unless the alkalies (necessary for the transformation of the carbonic acid into starch or sugar) be supplied in abundant quantity, and in a form fit for assimilation by plants. In fact, the principal object of scientific agriculture is to restore to land, in whatever way the restoration may be most convenient, the substances removed from it, and which the atmosphere cannot yield. Professor Johnston says lime is indispensable to the land; every 1000 lbs. of fertile soil contains 56 lbs. of lime; every 1000 lbs. of less fertile, 18 lbs.; and of the barren soil, only 4 lbs. Vegetable matter, i.e. woody fibre, in the state technically called humus, according to Liebig, does not afford nourishment to plants in the form in which we see it in soils, being, in

fact, very nearly insoluble, and therefore incapable of being taken up by the roots, which cannot take up any solid matter, but only as the carbon. A mixture of two or three carths, such as lime, silica, and alumina, is better fitted to absorb moisture and gaseous matter than either of the carths taken singly.

The Chinese are successful gardeners, and use the night-soil largely diluted without decomposing it. In India, cattle manure from the denudation of forests is too often made into fuel. The scanty manure heaps, with the exception of those rare instances where sheep can be hired to fold on the land, form the main resource of the country, and they consist almost entirely of the dung of lean cattle, and of the ashes of that which has been used as fuel; and the soil never can be kept in any other than in a very low and exhausted condition. It is robbed of its vegetable matter, because this is wanted to feed cattle, and, from the absence of trees, there is no means of procuring leaf manure. It is deprived of its phosphate of lime, which is very partially replaced, and of its potash, which can hardly be said to be replaced at all. A Madura native district officer, writing of the subject, says: 'I have not known a case in which, even with the greatest care, a ryot would have been able to secure, by collecting the dung of his own cattle, sweepings, etc., of his house, a quantity of manure sufficient for his field; nor can any be purchased at any reasonable price, since every one is careful to collect as much manure as he can.' In Kurnool, in dry cultivation, manure is never used, as it is all required for the irrigated lands. No village in the Panjab has enough manure for more than its best lands. But in many instances the cultivator has not, in consequence of the scarceness of pasture, even full command of his paltry manurial resources. In parts of the country the cattle are brought home every night to the sheds, but the bulk of the cattle have to be driven off to distant pastures, and do not return till the end of January, or early in February. In Bengal, even with such an exhausting crop as jute, no manure in many instances is used.

The native cultivators at Farrakhabad for ages have used the night-soil for manure. As much as Rs. 15,000 to Rs. 20,000 are paid there by the cultivators to the sweepers, and their lands yield a triple crop of maize, potatoes, and tobacco. At Dinapur, a cultivator who used some poudrette for his field was, for so doing, fined five rupees by his caste men. At Farrakhabad, careful inquiry showed that a household of five persons furnish enough manure to fertilize 12-20ths of a bigha; and a plough with its usual complement of seven head of cattle did the like for one bigha and 12-20ths of land.

In no country in the world is the necessity for manuring the land more appreciated than in India, and in few is the supply more wasted. It is carelessly collected and stored, and for the eight dry months of the year the sweepings of the stable and cow-house are used as fuel. The bones of dead animals are lost.

The practice of sowing the sunn plant for the purpose of a green manure proves that the natives appreciate the effect of manures decomposing in the soil. The use of liquid manure, specially carted for the purpose of distribution, is common

in some parts of the country. The high manurial value of indigo water is well known, and largely used wherever available. The sonai or jute water, in which jute has been steeped, is equally valuable. Many of the plants, Janjh, Hind-, growing in jhila, tanks, and other standing water, are useful. Water impregnated with the decomposed plants of the genera *Ceratophyllum verticillatum*, *Hydrilla verticillata*, *Vallisneria*, *Lemna*, *Pistia*, *Marsilea quadrifolia*, *Azolla binata*, *Salvinia verticillata*, and *Salvinia cucullata*, may be applied with great advantage to the soil. The species of *Chara* (*C. vulgaris*) in Europe. 1000 lbs. of green chara were found to consist of 158 lbs. of carbonate of lime, mostly deposited on the plant itself, 8 lbs. of chlorine, 12 lbs. of soda, and 596 lbs. of water. Nitrate of soda and superphosphates (viz. dissolved bones, bone-ash, and rock phosphate), with potash, magnesia, etc., are the fertilizers of the day.

The *Calotropis gigantea* is valued as a manure, and is ploughed into the ground, as also are the leaves of the cassia. In Afghanistan the dung of camels is carefully avoided, from a belief that it impregnates the soil with saltpetre.

In Rangpur, refuse indigo weed, which is thrown out of the vats, is used either fresh or after rotting like dung. Water from indigo vats is also used on poor lands. Oil-cake from mustard seed is applied both before and after sowing or planting in the cultivation of sugar-cane, wheat, barley, oil-seeds, etc. Oil-cake soaked in water and applied to the sugar-cane tops previous to planting prevents white ants' attacks. Weeds, straw, husks are burnt and strewed on the field. But throughout India, the country is for the most part destitute of wood, and firewood, having to be brought from great distances, is so scarce and dear that dried cattle dung is the usual fuel; the grass is short and scanty; the straw of the various crops is entirely consumed by cattle, which, with the exception of the finer kinds of draught breeds, are necessarily lean; the proportion of cattle, too, to the cultivated area is small, and as the food is extremely deficient, the manure is not only poor in quality, but small in quantity.—*Ben. As. Soc. Journ.*, April 1848; *Iull*, p. 311.

MANWAR PIALA, amongst the Rajput races a favourite expression, and a mode of indicating great friendship, 'to eat off the same platter (thali), and drink of the same cup (piala).' Tod (Rajasthan, i. p. 183) relates how a Rajput pledged another's health and forgiveness in the manwar piala, on which they made merry, and in the cup agreed to extinguish the remembrance of their feud.

MANYAM, KARN., from the Sanskrit Manyā, or from the Arabic Inān, respectable. In the south of India, land held free or at a low assessment in consideration of services done to the state or the community. The tenures are of many kinds, as Tarapadi Manyam, Dumbala or Sanad Manyam, Sarva Manyam, and Ardh Manyam. The Manyam, in the Tamil country, is an alienation of state demands.—*W.*

MANYARG, Birar, and Solon are three tribes of Tungus, dwelling on the Nonni, who occupy the vast prairies above the Bureya mountains, and keep large herds of horses. They number 20,000 souls. See Tungus.

MANZAL. ARAB. A halting-place, a stage of

a journey, a dwelling-house, a storey of a dwelling-house; a stage in the spiritual development of the Muhammadans in the tarikat or way of salvation.

MAOUTIA PUYA. *Weddell.* A nettle of India, growing up to 4000 feet. It is taller than *Boehmeria nivea*, but furnishes a similar fibre.

MAPILLA, in the plural *Mapillamar*, a Male-alam word, commonly written *Moplah* or *Moplay*, a native of Malabar, a descendant of the Arabs who first settled in Malabar, lit. the son (pilla) of his mother (ma), or sprung from the intercourse of foreign colonists, who were persons unknown, with Malabar women. The term is also applied to the descendants of the Nestorian Christians, but is in that case usually distinguished by the prefix *Nasrani*, while *Jonakan* from *Yavana* is prefixed to Muhammadan *Mapilla*, whose usual title is *Maraikan* or *Marakan*. The *Mapilla* of both classes are numerous in Malabar.

MAPLE. Several of this family of trees, the *Acer* genus, occur in the Archipelago, Himalaya, Kashmir, and Japan. They are trees principally of temperate Europe, Asia, and America, having opposite and mostly lobed leaves, with the veins radiating from the leaf-stalk. The sycamore (*Acer pseudoplatanus*, *L.*) is extensively planted in Britain. Its white, soft wood was much used for making trenchers, bowls, platters, etc. There might be introduced into India from the United States and Canada the sugar maple (*Acer saccharinum*, *L.*), the sweet sap of which is collected in spring by tapping the tree to the depth of about half an inch with an auger, and inserting a spout. The juice is boiled down to a syrup, clarified, drained, and crystallized. Good sugar maples yield each about an average of four pounds of sugar in the season. The wood of this species sometimes exhibits beautiful curled and spotted markings (bird's-eye maple); such is much valued for inlaying and cabinet-work. *Acer campestre*, *Linn.*, is the common maple of Europe. There are about 14 Indian species in the N.W. Himalaya, Assam, Burma, Bhutan, viz. *A. Campbelli*, *cæsia*, *caudatum*, *Hookeri*, *isolobum*, *laevigatum*, *niveum*, *oblongum*, *pentapomicum*, *picum*, *Sikkimense*, *stachyophyllum*, *Thomsoni*, *villosum*.

MAPPIA FCETIDA. *W. Ic.* *Gandapaana*, *SINGH.* A good-sized and very common tree in the moist forests of the western side of the Madras Presidency, and in Ceylon, from no great elevation up to 7000 or 8000 feet. It is very abundant on the Neilgherries.—*Beddome, Fl. Sylv.*

MAR. Amongst the broken tribes in Palawan and Sirguja are a few *Mar* families, who say that they came from Malwa. They live in good houses, and are careful cultivators. Some in Sirguja are of a yellow or tawny complexion, with handsome features, eyes well protected by prominent brow and nose, with good teeth and well-formed mouths, and of average height. Some have the same light complexions, with very flat features, and some are very dark. *Mar* or *Mala* is a name applied to or assumed by several people in different parts of India, but it may be that there is some affinity between all the tribes who bear it. It is the name assumed by the *Rajmahal* hill-men, who, from their language, are one of the Southern Dravidian nations.—*Dalton, Ethnol. of Bengal.*

MAR or **Maar.** **HIND.** A stiff clay or loamy soil, with some sand and vegetable mould. In

Bundelkhand the term designates a rich black loam, also called *Moti*. *Maradi* in Bombay is an inferior red soil.

MAR. **ARAB.** A saint; *Mar Yuhanna*, St. John; *Mar Jurjios wa Tannin*, St. George and the dragon, the name of a place about seven miles from Beirut, to the east, where St. George destroyed the dragon. A small chapel, now a mosque, was erected to mark the spot near the bridge of the river of Beirut. St. George, *Mar Jurjios*, is said to have been martyred at the town of Lydda, now a heap of ruins, the most remarkable of which are the remains of a very handsome church built by Richard Cœur de Lion, in honour of St. George. He is held in great veneration by Syrian Christians. In every church is to be seen a representation of his combat with the dragon, with the inscription *Mar Jurjios* in Arabic, or *Αγιος Γεωργιος* in Greek.—*Catagago.*

MARA or **Manh**, an evil nat, who subjected *Sakya* to varied forms of allurements whilst at *Buddha Gya*. *Mara*, the tempter, was the name given by the ancient Buddhists to the essence of the evil spirits.

MARA, **SANSK.**, from *Mri*, to die. From this, words have been derived in many tongues,—*mori*-bund, mortal, mortality in English; *mort*, death, in French; *morire*, to die, in Italian; *mout*, *marna*, *marana*, in Hindi. *Maru*, **SANSK.**; *Marubhumi*, dry, sterile land; *Maru-dea* or *Maru-athala*, the sandy deserts between *Rajputana* and the *Indus*.—*Wilson.*

MARABOUT is a name applied to feathers of certain birds, and also to the birds themselves. *Leptoptilus crumeniferus* belongs to a group of storks, distinguished by the head and neck being naked or only covered with small hair-like feathers, the strong cuneate bill, and the large external pouch in front of the throat. It is found dispersed over the tropical portions of Africa, and is said to frequent the negro villages, and to assist the vultures in clearing off garbage of all sorts. Under its wings grow the beautiful plumes known as *marabout* feathers. Nearly allied to the *marabout* is the adjutant (*L. argala*), so well known in British India from its extreme voracity. In Pegu the name is given to the under tail-coverts of a species smaller than the common adjutant, and without a pouch, found all over Pegu, but not so numerous as they were, owing to their being so constantly disturbed and fired at. The beautiful dorsal plumes of the white paddy birds during the breeding season, are objects of commerce, and pass by the name of egret feathers.

MARAE, in the Society Islands, the temples at which human beings were offered to idols.—*Montgomery*, p. 113.

MARAH of Scripture, supposed to be the modern *Howara*, with its bitter pools. *Marah* (bitterness). This name, in the form of *Amarah*, is now borne by the bed of a winter torrent, a little beyond which is a well called *Howara*, the water of which is bitter. The well rises within an elevated mound, surrounded by sand-hills, and a few date trees grow near it. Camels when thirsty will drink sparingly of this water, but the Arabs never attempt it.—*Wellsted*, ii. p. 43.

MARAKAL, *Marakkal*, or *Mercal*, a Madras measure of capacity of 8 *padi*. A *padi* contains 100 cubic inches. A *marakal* of rice or salt

weighs 960 rupees = 24 lbs. 6 oz. avoird., or 12 seers. This standard was fixed, 20th October 1846, at 28 lbs. 12 oz. 13 dr. 22 gr., or $2\frac{1}{10}$ the imperial gallon.—*W.*

MARAKAR, a titular appellation of the Moplah Muhammadans on the S.W. coast of the Peninsula of India.

MARAMMAT, ARAB., HIND., from Imarat, a dwelling; at Muhammadan courts, equivalent to the Public Works Department.

MARANTACEÆ, the arrowroot tribe of plants, includes the genera *Phrynium*, *Maranta*, *Calathea*. In the West Indies, arrowroot is obtained from the *Maranta arundinacea*, *M. allongia*, and *M. nobilis*, but also from the *Canna glauca* and *C. coccinea*, to both of which the local name of tous les mois is applied. In the E. Indies, arrowroot is prepared from *M. arundinacea*, also from *M. ramosissima*, a Sylhet species. Mahabaleswar arrowroot is obtained from *Curcuma caulina*, *Graham*. Travancore arrowroot is obtained mostly from the *Maranta arundinacea*, but the fecula of *Curcuma angustifolia* and of the cassava meal from the manihot is likewise sold under that name. *Curcuma angustifolia* is also the source of an arrowroot prepared at Benares, Bengal, and Chittagong. A wild arrowroot plant grows in Cuttack, and arrowroot made of it is not distinguishable from that of *Maranta arundinacea*, except, perhaps, by a slightly earthy taste and smell observable in the wild arrowroot, which is easily accounted for by its imperfect manufacture. Genuine *Maranta* arrowroot, when pressed, crackles beneath the fingers. *Maranta ramosissima*, *Wall.*, a plant of Sylhet; its roots yield arrowroot. *Maranta virgata*, *Wall.* (*Phrynium virgatum*, *Roxb.*), grows in the mountains between Travancore and Courtallum. The *Curcuma* or East India arrowroot, as exported to England, principally from Calcutta, has a white and a brown variety.—*Voigt*; *Roxb.*; *O'Sh.*; *Cat. Ex.*, 1862.

MARANTA ARUNDINACEA. *Linn.* Pen-bwa, BURM. A native of the W. Indies, but now grown in many parts of the E. Indies. This produces the best W. India arrowroot, which is prepared by maceration of the roots in water, and conducting the further processes similarly to the mode of manufacturing starch from wheat, potatoes, or other farinaceous substances. The *Maranta arundinacea* was introduced in 1840-1841 into Ratnagherry, where it thrives extremely well, though it is not grown to any extent. It was also introduced into the Tenasserim Provinces, and the arrowroot made from it was not inferior in quality to any. *Maranta arundinacea* is largely grown in Travancore, at Chittur near Arcot, in the Tenasserim Provinces, and at the Andaman Islands.

MARANTA DICHOTOMA. *Wall.*

<i>Phrynium dichotomum</i> , <i>Roxb.</i>	<i>Donax arundastrum</i> , <i>Lour.</i> <i>Thalia cannaformis</i> , <i>Horsf.</i>
Mukto-pati, . . . BENG.	Sital-pati, . . . BENG.
Pati-pati, . . . "	Then, . . . BURM.
Madar-pati, . . . "	

This straight-stemmed *Maranta* grows in Coromandel, Bengal, Sylhet, Assam, Tenasserim, Siam, Cochinchina, Moluccas, and New Hebrides; the stems are split and woven into smooth and particularly cool and refreshing mats. Tenasserim mats are also made from the split stems of a species of *Maranta* imported from Rangoon,

although the plant from which they are made, or an allied species, is abundant in Tenasserim forests.—*Drs. Roxb., Voigt, O'Sh., Mason.*

MARASCHINO, a liqueur, chiefly manufactured in Venice, Trieste, and Zara in Dalmatia, from a variety of cherry, named the Griot marasquin. The fruit and seed are crushed together, one part to the hundred of honey added, and the whole mass subjected to fermentation; during this process it is distilled, and the product is rectified. To the rectified spirit, sugar and water are added, in proportions guided by the taste of the manufacturer, and the resulting liqueur is stored for some months before use, to free it of empyreumatic flavour. The fruit tree is the *Cerasus caproniana*.—*O'Sh.* p. 323.

MARASU-WAKALIGA, a cultivating race of Mysore. Up till the year 1873, the women on marriage made a vow that on the birth of their first child they would offer as a sacrifice the joints of their fingers to the goddess Kali. In some instances where the family was well-to-do, gold or silver finger-joints were substituted for human ones. This barbarous rite, it appears, had existed for years in many parts of the Mysore province, and was not discovered till lately. It is performed on the third or fourth day after accouchement, and in many cases death has ensued. On discovery of the existence of the rite, the district magistrate immediately sent for the leading men of the class, and asked them whether they would like the rite abolished, and why they observed it. They are reported to have said that they simply observed it because all the class observed it, and that it was a very old custom amongst them. They said that if the order extended to the whole class, they would be very glad to give up so barbarous a rite, but that as long as some of them observed it, they could not fly in the face of their ancient traditional customs. The Chief Commissioner of Mysore and Coorg, by public proclamation in the Mysore Gazette, prohibited the practice.

MARATHALI, the goddess of smallpox.

MARAVA, a race in the extreme south of India, in the Madura, Tinnevely, Ramnad, and Sivaganga districts, who differ from other neighbouring races in personal appearance, and their language and customs also differ. They worship local deities, to whom they offer liquor, flesh, and fruits, and they practise divination. The men do not wear turbans. They possess lands. They are a robust, hardy, dark-skinned, stalwart race, athletic, with well-developed muscles, active, of moderate height, the cranium rounded, narrow in front, forehead low, eyes large and full. They are employed as village watchmen, and are honest to their employers, but have been largely given to thieving and gang robbery. They use as food the flesh of all animals except that of the cow. They wear their hair long, and arranged like the women of the Dekhan. In their marriages, disparity of age is not considered, nor is the presence or assent of the bridegroom necessary,—a blade of wood, in his absence, serving as proxy. They worship evil spirits, to whom they sacrifice, and, on the occurrence of a smallpox or cholera epidemic, the whole village is excited, and devil dances are common. The Maravar women of Ramnad and Sivaganga wear cloths of 25 or 30 cubits in length, folded in plaits, which they fasten behind. This is unlike other women of S. India, whose cloths do not

exceed 20 cubits, and are fastened on the right side in front. They intermarry, some of the subdivisions not marrying into the father's family; but Hindus in general intermarry with the mother's relations. Maravar means a warrior. In Ramnad and Tinnevely, the titular surname of all the Maravar is Dever, also Thavan, which means God.

The Ramayana describes the forest or wilderness of Dandaka as covering the whole extremity of the Southern Peninsula, and the rude inhabitants are designated Rakshasa (monsters) or Vanara (monkeys), the former term meaning races or tribes hostile to the Aryan race. But Vanara is from Vana, a wilderness, and Nara, a man, that is a wild or uncivilised man, and to this sense, as to the wild races in the extreme south, the fable of Hanuman, the chief monkey, and that of his army, Mr. Taylor thinks may be reduced. He says that those who have seen the Collieri and Marava will readily consider them to differ from all family likeness of the Aryan Hindus, and as their visages often resemble baboons more than men, it would require even less than the ardent poetical imagination of a Valmiki to induce the employment of an equivalent word which would so aptly seem to convey the idea imparted by their appearance.

During the wars of the 18th century, the Collieri and Maravar adhered to the British or to the French standards, and evinced fidelity and devotion to the cause of the party they espoused. Orme, the historian, relates that the Maravar chief of the Collieri race in 1752 sent 4000 peons and Collieri to aid Chanda Sahib. Like the Ramuai of Sholapur and Bombay, the Marava are subsidized by being employed as watchmen of houses. The zamindar of Ramnad is a Marava. Maravar marriages are sometimes of an incomplete character, and they have a second and more complete one.

Maravar or Marava is perhaps the Marullo of Cosmas Indicopleustes, which was on the continent adjoining Ceylon, and produced conch-shells. The history of the race is obscure. Two centuries before the Christian era, we find Kirata, its reigning sovereign, making war with Kula Bhushana Pandiyan, and reducing him to sad straits. The invader overran the whole country, but the Marava host and its commander were afterwards destroyed. The invasion of the country by the Muhammadans terminated the Pandiyan dynasty, and the Setupathi threw off his allegiance to the ruler of Madura, and during the administration of the Nayakkans, the Marava sovereigns continued practically independent. Professor Wilson says: 'A few years after the irruption of Mujapid Shah (? Muzaffar), or about 1380, the governor of Madura threw off his dependence on Madura, and his successors extended their authority to the neighbouring provinces, since called the Great and Little Maravas.'

The title Setupathi was conferred upon Wodeya Deva, the ruler of Ramnad, by Mutu Krishnappa Nayakkar, as an acknowledgment of the former's services in escorting a holy guru to and from the shrine at Ramisseram.

In the reign of Tirumalei Nayakkar, the Setupathi distinguished himself by repelling a Mysorian invasion with an army of 6000 men, for which he was rewarded with a lion-headed palanquin and other insignia by the sovereign of Madura. From

the year 1729, the power of the Maravars began rapidly to decline. The Sivaganga zamindari was then formed out of two-fifths of the Ramnad territory, and made over to one Seshavarna Dever.

Ramnad, on its occupation in 1772 by the British under General Joseph Smith, became an integral portion of the British Indian empire.

There are at present only two Marava zamindaris in Madura, viz. Ramnad and Sivaganga, but Tinnevely contains more than a dozen, of which Nellitungavale, Chokkampatty, Utumalei, Kadambur, and Tirukanangudi are the chief. Almost all the other polygars are of the Totia caste, and the descendants of the Telugu chieftains that came with the Nayakkans from Vijayanagar. The Madura Chronicle tells us that Viswanatha, the first of the Nayakkan dynasty, distributed the country amongst his adherents, to the number of seventy-two, for the better defence of the kingdom. The Maravar's names occur in that list. Professor Wilson says: 'Upon the occupation of Madura by the first Nayak, five rajas are said to have combined to revenge the wrongs of the ancient dynasty of Madura. These petty chiefs were the ancestors of some of the polygars of the south, who gave so much trouble to the British forces in the middle of the 18th century.' This was not Cataboma Naick, zamindar of Panchalan-curitchy, for he was a Totian, and consequently a Telugu; the chiefs spoken of being no other than Pulee Taleivar and his confederates, who withstood the British forces in 1755. Being all of the Maravar caste, they refused to pay tribute to the nawab. They were literally swept from off the face of the earth; for nothing remains of their old grandeur and state except the debris of their capitals. Pulee Taleivar was hanged, and his zamindari of Nellitungavale now consists of a few wretched villages in the possession of a branch of the Maniatchy family. Chokkampatty has been sold off to meet the claims of a Nattukotei Chetty. Kadambur, Utumalei, Nalanthila, and Sirukanangudi drag on a miserable existence compared with their wealth of former times; while Maniatchy is split up into three or four parts.—*Yule, Cathay; Rev. Mr. Taylor in Madras Government Records, 1867, p. 4; As. Soc. Journ.; Orme's Hindustan.*

MARBAU. MALAY. The *Metrosideros Ambonensis*, R., of Sumatra, grows to a large size, and is used for beams both in ship and house building, as well as for other purposes to which oak is applied in Europe.

MARBLE.

Tau-wha-shih.	CHIN.	Pualain, Marmar.	MALAY.
Marmar.	DUT.	Sung-i-marmar.	PERB.
Marbre.	FR.	Marmora.	PORT.
Marmo.	IT.	Mramor.	RUS.
Marmor.	LAT.	Marmol.	SP.

Marble is the granular limestone or carbonate of lime of mineralogists. It is hard, compact, of a fine texture, and readily takes a fine polish. In colour, some marbles are quite black, others again are of a snowy white; others are greenish, greyish, reddish, bluish, or yellowish, and some are variegated and spotted. In Europe, the finest solid marbles are those of Italy, Blackenburg, France, and Flanders.

The marbles of Tabreez and Khorasan are transported to the most remote quarters of the Persian empire, and marble is found in many

parts of British India, in Burma, and in China. It is obtained in Ho-nan, Shen-si, Yun-nan, and Canton. The blue-clouded marble slabs of China are about a foot square, and are exported to India, Sydney, South America, etc., for pavement or floors. It is obtained to the north-west of Canton. There is also a red breccia marble brought to Canton, which is employed in tables, stone stools, etc., and is seldom sent abroad. The marbles of the Madras Presidency are of rare colour and fine quality. The specimens sent to the Great Exhibition of 1851 were favourably reported upon as indicative of a valuable material, well adapted to sculptural and ornamental purposes. At present the Indian manufacture of this article is comparatively insignificant, and chiefly confined to small miscellaneous articles for domestic use.

Marble is found in considerable quantities in the Coimbatore district, through a tract of 7 or 8 miles, extending to the Walior jungle. Its colours are white, grey, and pink, compact, dense in structure, with veins of other colours. A green marble is found in Tinnevely.

1 The pure white marble of Tinnevely is in large crystals like that of Burma. The marbles of the Cuddapah district are of greenish colours, from pale apple-green to deep leek-green, and beautifully shaded; they attracted attention in the Exhibition of 1851. At Bhera Ghat, on the Nerbadda, 10 miles from Jubbulpur, on the line of the railway to Bombay, a white saccharine marble is plentiful and easily accessible. It has been used in a limited degree at Jubbulpur, sometimes to make lime, and other times for metalling roads. It is made up into images by natives, who do not give it a good polish. A block which was sent to the Paris Exhibition of 1855 was pronounced to be equal to Italian marble for statuary purposes; very large slabs can be easily quarried. The marble rocks at the Bhera Ghat, on the Nerbadda, about 10 miles from Jubbulpur, narrow the stream there to 20 yards, and the shining cliffs of white marble, a dolomite or magnesian limestone, rise there to 80 or 120 feet. The granular white marble of Korhadi, 3 feet by 2, and 9 inches thick, is sold at Rs. 2. This marble and the sandstone and coal of the same locality, with the alabaster, gypsum, and dolomite of Jubbulpur, will probably become articles of export. At Tinnevely, also, there is an excellent white marble, but considered rather too hard for statuary purposes; and Guntur and the Ceded Districts abound with marbles of great variety of colours, being tints of grey, yellow, and red. Marble occurs at Attock. Both white and grey occur at Noohky. The marbles and building stones, and the red sandstone so commonly seen in all ancient buildings from Benares up to Lahore, were formerly imported from these parts, and magnificent mosques, tombs, and shrines yet remain to tell us of that trade.

Marble in the Panjab is found in the Dehli district, at Sahi Bullughur, Hissar, and Jhelum.

The marble used by the Burmese in the manufacture of their numerous figures of Gautama, for the pagodas, etc., is obtained from the quarries in the small steep ridge of the Tsagyen Hills, near the village of Mowe in the district of Madeya, a little N. of Mandalay. The great mass of the limestone forms the summit and eastern face of the hills, and here are situated all the quarries

from which the marble has been extracted. The limestone rests upon hornblendic gneissose rocks, which form the lower portion of the hills, and is for the most part tolerably pure and massive, but occasionally has an imperfect lamination, given by flaky plates of mica arranged in lines of the mass. It is, in the mass, of nearly a pure white, and is largely and finely crystallized. Portions of it have a delicately blue tint, while others are stained by ferruginous spots. A block suitable for a figure 3 feet high can be had at Amarapura for about 50 tikals, or about £6, and a figure of these dimensions may cost about 150 tikals, or about 180 rupees=£18. Large blocks can now rarely be had, the largest obtainable do not now average more than 4 or 5 feet long by 2 or 3 feet thick, but even these are not frequently obtained, and are expensive. For smaller blocks there is a constant demand. The marble workers are settled at Amarapura and Tsagaing. With a hammer and chisel the workman rapidly gives a rough outline to the mass, and by occasionally, with a few lines of charcoal, marking out the drapery and limbs, he rapidly completes the figure. Partly owing to the delicate tinge of blue, and to the generally large crystallization of the mass, there is a peculiar semi-transparent look about the finished sculptures, which has most probably given rise to the general notion that these images are of alabaster. Pallagoix speaks of the beautiful marble he found in the island of Si-Hang, on the coast of Siam, polished as brightly by the waves of the sea as it could have been by the hand of man.—*Balfour on the Marbles of Southern India; Central Provinces Gazetteer; Madras Ex. Jur. Reports; Powell; Oldham in Yule's Embassy*, p. 327; *McCulloch's Commercial Dictionary*, p. 787; *Bourring's Siam*, i. p. 30.

MARCHANTIACEÆ. *Lindl.* The liverwort tribe of plants, including the genera *dumortiera*, *Grimaldia*, *plagioclasma*, *fimbriaria*, *dumortiera*, *riccia*, *jungermannia*, and *blandovia*. Dr. Griffiths collected 48 species in Assam; they grow in the earth or on trees, and are unimportant.

MARCHES of soldiers in India, from their prolonged character, require to be performed in a manner as if permanently in the field. Sir John Malcolm mentions (ii. p. 158) that Aga Muhammad Khan reached Isfahan on the third day, travelling 250 miles. Captain Cunningham mentions (*History of the Sikhs*, p. 225) that Colonel Steinbach with his Sikh regiment marched 200 miles in twelve days, which was equal to 16·6 miles daily. When General Sir Frederick Roberts marched from Kabul to Kandahar against Ayub Khan, the distance of 318 miles was accomplished in twenty-three days, including two halts. Thus the average distance per marching day was 15·17th miles, or, including the days of halt, 13·19-23ds per day. Such a feat, considering the nature of the country, and that the force moved in a single column, has never been exceeded. The great difficulty, as usual, was the transport; but the Afghan war has initiated a reform of a most important nature, by largely cutting down the amount of baggage, without which it has been hitherto thought that an Anglo-Indian army could not take the field.

The march commenced on August 9. Ghazni, a distance of 97½ miles, in which the Zamburak pass (7000 feet) and the Sher-i-Daban pass (9000 feet) were crossed, was reached on August

15. For this part of the march, an average distance of 18 13-14th miles was covered daily. The remaining distance of 134½ miles was covered in eight days, or 16 13-16th miles daily. 10,148 troops, 8145 native followers, and 11,224 animals, including cavalry horses, composed the column; the daily supplies for all these were drawn from the country after arrival in camp. Food was distributed and cooked with fuel (difficultly procurable, and brought in from a distance) during the eight days' march from Ghazni to Kalat-i-Ghilzai. The longest marches on any one day were 20 miles, from Ghazni to Zerghalta, and 21 miles, from Mukur to Panjak.

During the Indian Mutiny, the average number of camels, including those for the mess, was certainly not less than 2½ per officer; for the march from Kābul to Kandahar the allowance was one mule per officer, and one for mess purposes for every eight officers. To each European soldier was allowed 34 lbs. of kit, and to each sepoy 20 lbs., including camp equipage. The tent accommodation was also much restricted, yet to carry baggage and food there were required 1589 yaboos (large Kābul ponies), 1244 Indian ponies, 4510 mules, and 912 donkeys. Moreover, on the road there were purchased 35 yaboos, 1 mule, 208 donkeys, and 171 camels. Of these there perished before the arrival at Kandahar, 410 yaboos, 106 Indian ponies, and 217 mules.

In the Kābul and Kandahar march, in addition to the daily ration, a tin of pea-soup was issued to every two British soldiers daily, from August 18, which was commonly taken before the march commenced; lime-juice was regularly issued. Extra rum was issued three times during the march to all British and native spirit-drinkers, and an extra ration of meat to those who did not drink rum, with a meat ration for all followers whenever sheep could be obtained.

In the beginning of the 19th century, General Doveton left Jauluah with a rissala of cavalry, a wing of a European regiment, 4 companies of rifles, an infantry corps, and in two days and one night reached Bassein, 60 cos distant, having allowed three halts for refreshments.

During the campaign against the Mahrattas in the year 1804, the army, under General Lake, made a tremendous forced march of 54 miles in 30 hours, surprised Holkar and his cavalry at Farrakhabad, and routed them with great slaughter. The British had marched 250 miles in 13 days.

During the Sikh war in 1843, when the Governor-General was pushing on by forced marches with the grand army, with the view of relieving Ferozpur, on the 16th he advanced 80 miles, the train of camels extending in a line almost from the point of departure to that of arrival. On the following day 10 miles more were traversed, the troops suffering from want of water. Betwixt the 11th and 18th, in the course of six days, they had marched over a distance of 160 miles, along roads of heavy sand, the incessant toil scarce leaving them leisure to cook their food.

It may be interesting to refer here to other marches. General Crawford marched with the 43d, 52d, and 95th Regiments of Foot to reinforce Sir A. Wellesley, at the battle of Talavera, in July 1809; the brigade marched 62 miles in 26 hours, carrying arms, ammunition, and pack,

in all a weight of between 50 and 60 lbs. per man. In the Franco-German war, Dr. Roth, who served as chief medical officer with the Saxon army, mentions that the 18th division marched, from October 29th to November 17th, 55½ German miles, which is equal to 260 English miles, in nine days, nearly 18 miles a day; while on December 16th and 17th, in the various manœuvres about Orleans, they marched 54 English miles. They were very heavily accoutred, and the roads were bad. A company of a regiment of Chasseurs of MacMahon's army, after being on grand guard, without shelter or fire, during the rainy night of August 5th-6th, started at three in the morning to rejoin its regiment in retreat on Neiderbroun, after the battle of Weissenburg. It arrived at this village at 3.30 in the afternoon, and started again for Phalsbourg at six o'clock. The road was across the hills and along forest tracks, which were very difficult for troops. It arrived at Phalsbourg at 8.30 in the evening of the next day. The men had therefore marched part of the night of August 5th-6th, the day of the 6th, the night of the 6th-7th, and the day of the 7th till 8.30 p.m. The halts were eight minutes every hour, from 3.30 to 6, one hour in the night of the 6th-7th, and 2½ hours on the 7th; altogether, including the halts, the march lasted 41½ hours, and the men must have been actually on their feet about 30 hours, in addition to the guard duty on the night before the march. The exact distance is not known, but, considering the extreme difficulty of that rugged mountain country and the bad weather, this is perhaps the most toilsome march on record.—*Bombay Times*.

MARCO POLO was of a noble Venetian family. Nicolo and Matthew, two brothers, had mercantile establishments at Constantinople and in the Crimea. They quitted Venice for the east in 1254, left Constantinople in 1260, and passed through Bokhara to the court of the Kablai Khan, who sent them back as ambassadors to the Pope, and they reached Acre in 1269, when Nicolo found his wife long dead, but his son Marco grown to 15 years of age. After two years' delay, the two Polo, Nicolo and Maffei, in 1271, taking with them Marco, the young son of the former, set out on their return along with a priest, who, however, soon left them, delivering the Pope's letters into their hands. Starting from Acre, on the coast of Syria, the Polo were three years and a half upon this journey. They moved by Mosul, Baghdad, Hormuz, they traversed Kerman and Khorasan, Balkh and Badakhshan, in which last country they seem to have been long detained by the illness of young Marco. From Badakhshan they ascended the Oxus to the lake of Sirikol, and the plateau of Pamir. They crossed the steppe of Pamir, and descended into Kashgar, whence they proceeded by Yarkand and Khoten, and across the great desert of Gobi to the Tangut province on the extreme N.W. of China, partly within, partly without, the wall. Here they were met by a deputation sent by the Kablai Khan, who was at the time residing at Shang-Tu, about 50 miles north of the wall. Their journey had occupied 3½ years. Upon their arrival at Pekin, which they call by the Tartar name Cambala or Khanbalig, young Marco, then 21 years of age, was taken immediately into favour; he learned the language, and for 26 years

afterwards was a nobleman of the Great Khan's court, employed in several missions, and in other high offices of state. He came away at last, in A.D. 1294, in charge of a princess who was to be married to the Tartar sovereign of Persia. He was sent on a mission through Yun-nan to the frontiers of Ava, and successively to Kara-korum, to Champa or Southern Cochin-China, and to the Indian Seas, and afterwards by sea via Sumatra and India through Cambay to the Mongol tribe of Bayaut, to select a lady for the Kablai's great nephew, Arghun Khan of Persia, which he did, handing over the lady in 1294. He is the first European who speaks of Sumatra. He returned to Venice A.D. 1295. Marco was subsequently taken prisoner at the battle of Curzola (near Lissa), on the 8th September 1298. On his return to his native country, he circulated his travels, in manuscript, amongst his friends. The narrative was in 1298 transcribed by a Genoese named Rustigielo, four years after the death of Kablai Khan. They were first published in Latin in 1920. A copy had been presented by the government of Venice to the Infante Don Henrique in 1428, from which an edition was published at Lisbon in 1502. The earliest edition published in France bears date 1556. His book was entitled *Viaggi di Messer Marco Polo Gentiluomo Venetiano*. There are two translations of it into Latin. He treats in his book *De Regionibus Orientis*. Kablai Khan was the conqueror of Southern China, which the Arabs call Machin, and which Chengiz Khan, his grandfather, had charged his children to conquer, after he himself had gotten the Northern China called Khatai.

Marco Polo sojourned in the hills of Badakhshan for the sake of his health, and he describes the countries of Wakan, Pamir, Bolor, and Kashmir. His book and life have been repeatedly published, and in most of the European languages. It was translated in 1818 by Sir William Marsden, and Colonel Yule has since largely contributed to make the travels known.—*Marsden's Sumatra*, p. 4; *History of Genghis Can*, p. 443; *Prinsep's Tibet, Tartary, Mongolia*, p. 8; *Yule's Cathay*.

MARD KHOR. PERS. Man-eaters, the Aghora ascetics of the neighbourhood of Mount Abu, said to have resided there from the most ancient times, and formerly to have been cannibals; hence their name, meaning man-eater.

MARDUM SIAH. PERS. *Atropa acuminata*, also *A. mandragora*, mandrake; literally black manikin.

MAREB, a dam which formed a celebrated reservoir above the city of Saba in Yemen, between two hills of Balak. It burst about A.D. 120, and deluged the country far and wide. The bursting of Mareb lake is mentioned in chapter 34 of the Koran as the *Sail-ul-Arem*, or rush of water from the reservoir, and its bursting is there attributed to a punishment sent from God for the impiety, pride, and insolence of the city of Saba. 'The descendants of Saba had heretofore a sign in their dwellings, namely, two gardens, one on the right hand and one on the left; and it was said unto them, Eat ye of the provisions of your Lord, and give thanks unto him; ye have a good country and a gracious Lord. But they turned aside from what he had commanded them, wherefore he sent against them the inundation of El Arem, and he changed their two gardens

for them into gardens producing bitter fruit, and tamarisks, and some little fruit of the lote tree.' Reservoirs in which to store rain-water in Arabia are generally found in localities devoid of springs, and dependent on the winter rains for a supply of water during the summer months. The most remarkable instance on record is this great dam of Mareb. All the travellers who have penetrated Yemen describe many tanks in the mountainous districts; and others exist in the islands of Saaded-Din, near Zailah, in Kutto, in the Bay of Amphila, and in Dhalak, near Massowah.

MAR ELIAS, a monastery 64 miles E. of Mosul. Near it is a sulphurous spring much resorted to. It is called by the Muhammadans Deir-el-Munkoosh, the ornamented or painted monastery, and is the remains of a Nestorian monastery. Assemanni does not give the date of its foundation, but it is mentioned incidentally by him thus: Joshua Bar-num of Bath Gabar, a village on the Tigris, between Nineveh and Mosul, lived thirty years in the monastery of St. Elias before he was elected primate of the east, which happened A.D. 824. Abu Saed was Archimandrite of Mar Elias in A.D. 1028.—*Rich's Kurdistan*, ii. p. 113; *MacGregor*.

MARGALI. TAN. The 9th month of the Hindu year (November—December), when the moon is in the asterism Mriga-sirsha.—*W*.

MARGARINE. Most fats and fixed oils, vegetable and animal, are mixtures, generally of three distinct compounds, each of which taken singly has all the properties of fat. The first of these substances, called stearine (from *στέρη*, tallow or suet), is solid at common temperatures; it constitutes the solid fatty ingredient in mutton-tallow. The second is oleine (from *ελαιον*, oleum, oil), and is liquid at ordinary temperatures, and down to the temperature of freezing water. The third substance is named margarine (from *μαργάρον*, a pearl), on account of its mother-of-pearl lustre; it is solid at ordinary temperatures. All fats may therefore be regarded as mixtures of the fluid oleine with the solid stearine of margarine. If the solid be in larger proportion than the fluid, as in various kinds of tallow, it requires a greater degree of heat to melt it. If the fluid portion prevails, as in the oils, the melting point is lowered.

MARGARY, AUGUSTUS RAYMOND, born A.D. 1846. He left Shanghai on the 23d August 1873, ascended the Yang-tse to Hankow, and crossed to Bhamo, which he reached on the 17th January 1874. He returned alone in advance of Colonel Brown, and was killed on the 21st or 22d February at Manwyne.

MARGGA KARAN. MALEAL. In Malabar, a designation of Roman Catholics; qu. Marya Karan?

MAR-GHAT. HIND. A place of cremation. The place for the cremation of the Hindu dead.

MARGIANA. The second settlement of the Aryans was in Mouru, Merv, or Margiana. This is Margiana (from the river Margus), now Marghab (Margus-water), Margush in the cuneiform inscriptions; a fruitful province of Khorasan surrounded by deserts. In the Record (iii. verse 6) it is described as 'the third best land, the mighty and pious Mouru (Marw). . . . Ahriman created there wars and marauding expeditions.'

MARGOSA, the Portuguese name of the

Azadirachta Indica, which grows to 3½ feet in diameter. In appearance the wood is much like mahogany, and is used by the natives for general purposes. Its bark,

Bawa,	CAN.	Tel-kohumba, . .	SINGH.
Nim-ka-chal, . .	HIND.	Vaypum puttay, .	TAM.
Nimba,	SANSK.	Vaypa putta, . .	TEL.

is bitter, is considered a valuable tonic, and has been tried by European physicians with a success nearly equivalent to what might have been expected from cinchona bark. Oil is obtained from the seeds by either expression or boiling, and is much used medicinally. The fruit is not unlike a small French olive in size and appearance. The oil is of a deep yellow colour, has a strong smell and an unpleasant bitter taste; is much esteemed by native doctors as a warm medicine, as an external application in foul ulcers, and as a liniment in rheumatic and spasmodic affections, etc. It is frequently burnt in lamps, and is sold in the bazar under the name of bitter oil, also black oil. Dr. Maxwell found this oil equally efficacious to cod-liver oil in cases of consumption and scrofula. He began with half-ounce doses, morning and evening, which were gradually reduced. Margosa, as well as illipoo oil, mixed with an equal quantity of cold drawn castor-oil, produces a hard vegetable wax of an agreeable roseate colour.

The leaves of the genera *Melia* and *Azadirachta*, dried and kept in books, are much used by the people of India to preserve furs, feathers, books, papers, and clothes that are lodged in trunks, book-cases, etc., from the attacks of insects. It is useful to place along with them small packets of camphor, or little cups of camphor dissolved in alcohol.—*M. E. J. R.; Simmonds; Edye; Faulkner.*

MAR GREGORIUS ABU-L-FARAJ, also called Gregorius bar Hebræus, also Abul Farag, also Gregorius Abu-l-Faragius, was a Jacobite Christian of the city of Malatia, in Cappadocia, of the Armenian race, born A.D. 1226 at Malatia or Melite, a town near the western bank of the Euphrates in Lesser Asia. His father, the Hakim Harun-ul-Malati, was a physician. Abul Farag studied theology, philosophy, and medicine, and passed the greater part of his life in Syria. He became a Christian, and rose successively to be bishop of Gaba, then of Aleppo, and in A.D. 1266 primate of all the Jacobite Christians in the east. He was the author of a great number of books written in Arabic and Syriac, but the best known is his *History of the Dynasties from the Hebrew Patriarchs to the Moghuls*, which Dr. Pococke published in 1663, with a Latin translation and a supplement. He died in A.D. 1286 at Meragba, in Azerbaijan. He wrote the *Book of Dynasties* in Arabic, in the reign of Arghun Khan, the last of Chengiz Khan's grandsons. It was arranged in ten chapters,—1. On the Saints since Adam; 2. The Judges of Israel; 3. The Kings of Israel; 4. The Chaldean Kings; 5. The Kings called the Magi; 6. The Ancient Greek Kings; 7. Latin Roman Kings; 8. Christian Greek Emperors; 9. Muhammadan Arabic Kings; 10. The Moghul Kings.

MARI-AMMUN. Ammun or Amma, literally mother, in the south of India is the honorific suffix of various local deities, as Mari Amma, Yagath Amma. Professor Wilson thinks that Mari Amma comes from the Virgin Mary, and that Yagath Amma is from St. Agatha. But

Mari Amma seems to be from Mari, death, and Ammun, mother, mother-death. Amongst the Tamil people, Mari-Ammun is a new goddess who sends smallpox. She is said to scatter pearls; to propitiate her, sacrifices are offered and hook-swinging practised. She is a mixture of the village goddess and Kali, the sakti of Siva.

MARICHI, a Hindu author of a law treatise, and of one on religious services. The *Kapila Purana* describes him as an old man in the habit of a mendicant, and states that he lived as an anchorite at Bhadrashwa Varaha.—*Ward*, iv. 17.

MARIETTE BEY, a distinguished Egyptologist, died 1881. In 1848 he was attached to the Egyptian Museum at the Louvre; in 1850 he was sent to Egypt to search for Coptic manuscripts. He discovered the site of the Serapeum, the temple and enclosure dedicated in ancient times to the worship and custody of the sacred bull Apis, as well as the long range of tombs in which the bulls were buried. The tombs, dated and inscribed, furnish a check and a verification of Egyptian chronology derived from independent sources, while the actual remains discovered in situ are invaluable as illustrations of the ritual and worship of ancient Egypt. His explorations at Memphis were continued for four years. During his first visit to Egypt, Mariette had excavated the buried part of the Sphinx, and demonstrated anew the fact that that stupendous monument is hewn from the solid rock.

MARIGNOLLI, JOHN DE, a Minorite friar of the Franciscan monastery of Santa Croce at Florence, was sent by Pope Benedict on a mission to Cathay in 1338. He sailed from Avignon to Naples, and thence to Constantinople, and on to Caffa (Theodosia) in the Crimea, whence he proceeded to the court of the khan of Kipchak at Sarai, on the Volga, who forwarded him on to Armalec (Almalik), the capital of the Chaghtai khans of the Middle Tartar empire. He arrived at Cambalec (Pekin) in May or June 1342, and, after remaining there three or four years, sailed from Zayton for India, the 26th December 1347, and arrived at Columbum (Quilon) the following Easter. In 1349 he made a pilgrimage to the shrine of St. Thomas on the Coromandel coast, and thence proceeded to Saba, which he piously identified with the Sheba of the Bible, but which was probably Java. Sailing back to Malabar, he was driven to Ceylon, whence he sailed to Ormuz, and afterwards travelled by the ruins of Babylon to Baghdad, Mosul, Edessa, Aleppo, and thence to Damascus, Galilee, and Jerusalem, making his way back to Italy by Cyprus. He recognised as the Tower of Babel the ruins called by Rich, Mujalibe, and by Layard, Babel. These are about half a mile from the present channel of the river. The excavations at the Mujalibe or Babel show that the structure was much as Marignolli describes, viz. an exterior of burnt bricks laid in bitumen enclosing the unburnt bricks which form the interior mass.—*Yule's Cathay*, ii. p. 386; *Sir George Birdwood.*

MARIGOLD. Kin-tien-kiueh, CHIN. The Chinese force it successfully in the early spring, when it is a common ornament. *Tagetes patula* and *T. erecta* grow well on the plains of India.—*Jaffrey.*

MARIJ. ARAB. Lit. flame without smoke, i.e. wind, the genii are formed of it.

MARINO SANUTO, a Venetian nobleman who travelled in the east about A.D. 1300-1306. His book, entitled *Liber Secretorum fidelium Crucis, super Terræ Sanctæ recuperatione*, presented to Pope John XXII. at Avignon, initiates us into all the details of the course of the Venetian commerce with India at this period. Down to his own time, it used to take the route by the Persian Gulf. The merchandise of Malabar and Cambay was first conveyed to Ormuz and Kish in the Persian Gulf, and was thence transported to Bussora on the Euphrates, whence it passed up the Tigris to Baldac (Baghdad), and across the Syrian desert to Antioch and Cilicia, where it was embarked for Europe on board the ships of Genoa and Venice. Latterly, however, the merchants of Southern Arabia had gradually recovered their old commerce, and part of the merchandise of India and the east now came into Europe by way of Ahaden (Aden) and Chus (Coptos) on the Nile, and Alexandria. The rarer commodities, such as cloves, nutmegs, mace, gems, and pearls, were still conveyed up the Persian Gulf to Bussora, and thence to Baghdad, from which they were carried to some port on the Syrian or Arabian coast of the Mediterranean; but all the more bulky goods, such as pepper, ginger, cinnamon, together with a portion of the more valuable articles, were now conveyed by the ancient route to the Red Sea, and thence across the Libyan desert and down the Nile to Alexandria.—*Sir George Birdwood*.

MARJORANA HORTENSIS. *Manch.*

Origanum marjorana, <i>L.</i>	O. onites, <i>Lam.</i>
O. marjoranoides, <i>Willd.</i>	O. acinacifolium, <i>Wall.</i>
O. Wallichianum, <i>Benth.</i>	Amaracus vulgarior, <i>Lob.</i>
Mir-zun-jush, . . . ARAB.	Murwa, . . . GUJ., HIND.
Marjoram, . . . ENG., GER.	Marru, . . . TAM.
Marjolaine, . . . FR.	Maruvamu, . . . TEL.

Sweet marjoram is a culinary herb cultivated in most parts of Lower India. It is used for flavouring sauces and roast meats. The flowers are considered by Hindu doctors as possessing cephalic qualities, and the plant is known to possess tonic virtues. It is easily reared in beds or pots, either by slips from the roots or seed. Hindus offer it at the shrines of Vishnu and Siva. It is a shrub in its native country, but an annual in gardens of Europe. It is a native of the north of Africa near Mascar, on hills, and of Asia, on the mountains of Kamaon. When in blossom, the plant is cut and dried for winter use as a savoury ingredient in cookery.—*Faulkner; Jaffrey; Voigt*.

MARKAN. HIND. A Panjab grass, eaten in famine; such a famine is recollected in the Panjab by the name Markanwalli sal.

MARKANDA, a valley in the Siwalik branch of the sub-Himalayan mountains, where a fossil ruminant was discovered by Dr. Faulkner, and named by him *Sevatherium giganteum*.

MARKANDEYA, one of the Purana religious books of the Hindus, an uninterrupted succession of legends. It is supposed of date the 8th to 10th century A.D. Markandeya, in Hindu mythology, a being who lived through several kalpas.—*D.*

MARKHAM, CLEMENTS R., O.B., F.R.S., in early life was a midshipman in the British navy, and served in the Arctic Expedition of 1850-51. He was for twenty years in the India Home Office, serving in the Geographical

Department from 1867 to 1877, where he had opportunities for promoting the well-being of the people of the East Indies, devoting himself from 1859 to the introduction there of species of cinchona. He had previously travelled in S. America, and had become acquainted with the people and their languages, the Spanish and Quichua; and in 1860 he proceeded to the cinchona regions, accompanied by Mrs. Markham, who, at Arequipa, directed the work of the other collectors whilst her husband was in the forests of the Andes; and he twice proceeded to India to secure the suitable treatment of the plants and seeds which he had collected. He was ably assisted by Mr. John Weir, Dr. Spruce, Mr. Robert Cross, Mr. Pritchett, and Mr. Ledger, and, in India, by Mr. M'Ivor.

By the year 1880 there were 12,667 acres under cinchona cultivation on the hills of S. India and Ceylon, and in Sikkim; and the bark from British India sold in London in 1879-80 was 1,172,060 lbs., selling at from 9s. 1d. to 15s. 8d. per lb.

The introduction of the cinchona had cost £129,628 up to 1876, and £173,046 had been realized. Considering the value to the people of the febrifuge, and to the planters as an agricultural product, it is one of the largest boons bestowed on India.

In 1875 he selected Mr. Robert Cross to proceed to Central America to collect India rubber plants of the genus *Castilleja*; and in the following year a supply of those obtained was forwarded to India. Again, in 1876, Mr. Cross was sent to South America, this time to collect plants of the genera *Manihot* and *Hevea*, supplies of which also were sent to India, Ceylon, and Burma.

India is also indebted to Mr. Markham for the Cuzco variety of maize, for the quinoa, and for the true Peruvian cotton, a perennial species which takes a high place as a cotton-yielding plant.

He published (1862) his *Travels in Peru and India*, while superintending the collection of cinchona plants and seeds; in 1880, *Peruvian Bark, a Popular Account of the Introduction of Cinchona Cultivation into British India*. He published a *Memoir on the Indian Surveys*; a *Memoir on the Irrigation Works of Eastern Spain*; the *Narratives of Bogle's Mission to Tibet*, and of *Manning's Journey to Lhasa*, with an Introduction and Biographical Notices; also a *History of the Abyssinian Expedition*; a *History of Persia*; a *Life of Lord Fairfax*. And among other works, etc., of public importance he was secretary to the Royal Geographical Society and to the Hakluyt Society; he wrote, for 1871-72 and 1872-73, the *Moral and Material Reports on India*, and edited, for the Hakluyt Society, a translation of the *Embassy of Clavijo to the Court of Timur*.

MAR-KHOR. HIND.

Rawacheh of LITTLE TYB.	Rass of the . . . Oxus
Tsura or water-goat, "	Capra megaceros.

Capra megaceros of Hutton, the wild goat of Hazara and the N.W. Himalaya, etc., is called mar-khor, because fabled by the mountaineers to kill snakes by looking at them; and in Yaghistan and Chilas they say that when its foam falls on certain stones it turns them to sahr-mohra. The ibex and mar-khor often dispute each other's footing. It is found on the mountains of Persia

and Afghanistan, and is plentiful on the ranges around the Khaibar pass. From Torbela and Little Tibet it wanders down the Suliman Range as far as Mitenkote on the Indus, at the junction of the latter and the Sutlej. It is common on the north-western ranges of Kashmir, including Dardu; from thence a few herds are to be met with all along the southern or Futi Pinjal as far as Kishtewar on the Chenab. The northern ranges of Kashmir and Ladakh are apparently without a single individual, perhaps on account of the ibex and wild sheep frequenting these mountains. Mr. Blyth and Dr. J. E. Gray consider this species as most likely a variety of the domestic goat; but from all Dr. Adams could learn of its habits and appearance, there is perhaps more cause to consider it the progenitor of the domestic animal than even the ibex. The mar-khor is usually found in small herds. Like the ibex, it delights to browse on steep and rocky mountains, ascending and descending with the seasons. In winter, in common with other alpine species, the fur becomes dense from the woolly pileage, which gives a lighter colour to the coat than during midsummer and autumn, when it disappears, and the fur is short and brown. Hunters have strange stories of the serpent-eating disposition of the mar-khor. Ajiz Khan assured Dr. Adams that an ammonite he picked up on the mountains had become petrified from having passed through the intestines of a mar-khor.—*Adams; Jerdon.*

MARKING NUT, or Malacca bean.

Beladur, . . . ARAB. | Shayrang cottay, TAM.
Gheru, . . . CAN. | Nelsajidi, . . .
Bellawan, Bhela, HIND. | Jidighenzalo, . . . TEL.

The *Semecarpus anacardium* tree is a native of all India. Its nuts are black, smooth, shining, and flattened on both sides. The nut rests upon a thickened stalk (peduncle). The pericarp or shell of the nut is composed of two laminae; between them are cells which contain the black, corrosive, resinous juice, which is employed to mark cotton cloth. The colour is improved and prevented from running by a little mixture of quicklime and water, whence its name of marking nut. The tribe of plants to which it belongs abounds in plants yielding a blackish, acrid, and resinous juice, used for varnishing and other such purposes. The oil is acrid and vesicating; it is found, as related above, between the two laminae of the pericarp, and is used as a preventive against the attacks of white ants, and by native practitioners as an escharotic in aches, pains, sprains, and in rheumatic and leprosy affections. It is obtained by boiling the whole nut not divested of its pericarp. The preparation or collection either of the oil or acrid juice is liable to cause much irritation and inflammation of the hands and face, etc., of those engaged in the work. The oil obtained from the kernel of the nut is of a different character; seems to resemble the mild oil of cashew-nut kernels.—*M.E.J.R.; Roxb.*

MARLBOROUGH. James Ley, Third Earl of Marlborough, an eminent mathematician and navigator, was slain in the great sea-fight with the Dutch, June 8, 1665. His body lies in Westminster Abbey. He had arrived in Bombay on the 18th of September 1661, with a fleet of five ships, to take possession of the island of Bombay as part of the Infanta Catherine's dower on her marriage with Charles II. The Portuguese

in Bombay having refused to give up the island, Marlborough landed the 400 soldiers under Sir Abraham Shipman on the small island of Anjideva, 12 leagues to the south of Goa, where, having left them, he sailed away to England. The consequence was that Sir Abraham Shipman and 300 of his men miserably perished on this unhealthy spot, of exposure during the rains of 1662. The survivors formed the cadre of the Hon. Company's 1st European regiment, or Bombay Fusiliers, since the 103d Foot. The other regiment raised at the same time became known as Kirke's Lancers, since the 2d or Queen's Regiment. Under date the 15th May 1663, Pepys writes: 'The Portugalls have choused us, it seems, in the island of Bombay in the East Indys, for after a great charge of our fleets being sent thither with full commission from the king of Portugall to receive it, the Governour by some pretence or other will not deliver it to Sir Abraham Shipman, sent from the king, nor to my Lord of Marlborough.' And under date of September 5, he speaks of 'the disappointment of the king by the knavery of the Portugall Viceroy, and the inconsiderableness of the place of Bombaim even if we had had it.'—*Sir George Birdwood.*

MARLEA BEGONIFOLIA. Roxb. ii. p. 261.

Bodara, Mandra of BEAS.	Prot of . . . KANGRA.
Sialu of . . . CHENAB.	Padlu of . . . RAVI.
Til-pattra of . . . JHELUM.	Marlea of . . . SYLHET.
Chit, Kurkni of . . .	"

A small but handsome timber tree, with maple-like leaves, occurring near the Indus from about 3200 to 6000 feet; wood used for house-building. Its leaves are eaten by sheep.—*Dr. J. L. Stewart, M.D.*

MARMALA WATER, a fragrant perfume distilled in Ceylon from the flowers of the *Æglo marmelos*, and used in the ceremonial sprinkling of visitors.

MAR-MATTEI, a monastery 30 miles N.E. of Mosul, founded A.D. 334 by Mar Mattei, companion of St. George.

MARMOT, a genus of mammalia of the subfamily Arctomydinae; one species occurs in Europe, and two species in the region around the Paropamisus.

Arctomys hemachalanus, red marmot.

Chipi,	BHOT.	Sammiang, . . .	LEPCH.
Phesa,	HUNNIA.	Drun,	TIBET.

Occurs at 8000 to 10,000 feet in Kashmir and the N.W. Himalaya. The total length of an adult is from 2½ to 3 feet; the colour chestnut, with black splashes on the back and hip. It is seldom met with under 8000 feet above the level of the sea.

Arctomys bobac, *Schreber*, is the Tibet and Russian marmot or white marmot. Dr. Adams, when crossing the Tang Lang pass, came on a colony of white marmot, distinguished at once from the red species by its lighter colour, being a yellowish-white, but also by its call, which more resembles a whistle than a scream. One side of a spur was riddled by their burrows. The white seems to take the place of the red marmot on the more barren and higher ranges above 10,000 and 12,000 feet. The bearded vulture and larger eagles are among their chief enemies. He saw the former bear off a marmot with great ease. The marmots are generally supposed to be the animals alluded to by Herodotus as gigantic ants, which dug up gold. They form a small group of rodents allied to the squirrels, but strictly terres-

trial in their habits. They are found in the northern portions of both hemispheres, and live generally in societies in mountainous districts. They excavate extensive galleries, in which they reside, passing the winter months in a state of torpidity. The alpine marmot is the commonest European species.

MARMUT, a lichen abundant in the crevices of the rocks of Baluchistan, used medicinally by Hindus in diseases of languor and oppression of the *vis vitæ*. The plant, replete with juice, and extremely bitter and nauseous, is dried, and a quantity of the powder swallowed, after which water is directed to be drunk. The same, or an analogous plant, abounds in the Khaibar Hills, and is carried to Peshawur, where it is largely used as an article of food by Hindus.—*Masson's Journeys*, ii. p. 116.

MARONITES are the most numerous of the Lebanon tribes, numbering about 200,000, of whom 85,000 were reckoned capable of bearing arms. Maronites, along with the Druse, occupy the most central valleys and the highest ridges, from the neighbourhood of Tripoli to the south of Beyrout. The Keshrouan, in the neighbourhood of D'Jounie Bay, is exclusively occupied by this Christian sect, said to have been founded in the 6th century by a certain St. Maronius, and which, in religious matters, acknowledges the supremacy of Rome, though its clergy maintain the right of electing their own bishops or patriarchs, of dispensing with a state of celibacy, and of entering into the marriage state. Maronites live in dispersed hamlets and homesteads, engaged in cultivation. The head of their religion has the title of *Batrak* or *Patriarch* of Antioch. They do not allow re-marriage of widows. They are governed by a *Kaim Makam*; their monastery of Kizhaia is 20 miles E. of Tripoli; they exorcise demons.—*Catagogo*.

MAROO. **HIND**. Two antelope horns joined in opposite directions at their bases, carried by fakirs.

MAROOST'HALI, the desert of Rajputana; the word means the abode of death, and is a very emphatic appellation of this sterile region. Though all these regions collectively bear the term *Maroost'hali*, or region of death (the emphatic and figurative phrase for the desert), the restrictive definition applies to a part only, that under the dominion of the Rahtor race.—*Rajasthan*, i. p. 18.

MARRI or *Murree*, a sanatorium town, in lat. 33° 54' 30" N., and long. 73° 26' 30" E., and 32 miles N. of Rawal Pindi. The southern side of the station of Marri is 6963 feet above the sea. Rawal Pindi, to the west of the Jhelum, is 1737 feet above the sea. The range of hills on the right bank of the Jhelum overhang the platform of Rawal Pindi. It is a narrow ridge separating two deep river valleys, whose vegetation is quite tropical.—*H. f. et T.* p. 213; *Schl*.

MARRI or *Murree*, a race or tribe occupying part of Baluchistan. Kahan town, in Kach Gandava, is in the hill ranges east of the plain of Kach. It belongs to the Doda Marri, a division of the great and widely-dispersed Marri tribe, who have been located in the neighbourhood for several centuries. The Marri are a brave race, and had long been distinguished as daring depredators.—*Masson's Journeys*.

MARRIAGE CUSTOMS.

Zijah,	ARAB.	Muta (temporary),	HIND.
Nikah, Shadi,	DEKHAN.	Laggaa,	MAHR.
Byah, Akd,	HIND.	Tasawaj,	PEER.
Katkhudai,	"	Kalyanam,	TAM.

In the E. Indies, amongst its various races, forms of marriage are to be seen from the simplest modes of mutual consent, through all the various known procedures of marriage by capture, community of right, polygamy, polyandry, temporary marriages, permanent lifelong marriages, endogamous marriage within the tribe or race, exogamous marriage out of the tribe or race; and there are sects of men and women who never marry, and men and women who marry only once.

Mr. M'Lennan and Sir John Lubbock have examined, at length, the subject of primitive marriage, and various writers on the tribes and races in the south and east of Asia have furnished notices of the prevailing marriage customs. A popular theory is that marriage sprang from the family, which developed into the clan; but according to Mr. M'Lennan, observation among the savage races still existing in the world always leads back to groups of naked savages living by the capture of wild beasts or upon the more easily caught shell-fish. These groups, he contends, only very slowly developed the idea of kinship, the primary one being that as they held their women in common they were never certain of relationship, except through the mother's side.

Sir John Lubbock points out that in some cases the exclusive common possession of a wife could only be legally acquired by a temporary recognition of the pre-existing communal rights. Thus, in Babylonia, according to Herodotus (*Clio*, p. 199), every woman was compelled to offer herself once in the temple of Venus, and only after doing so was she considered free to marry; the same, according to Strabo (*lib.* 2), was the law in Armenia. In some parts of Cyprus, also among the Nasamones (*Melpomene*, p. 172) and other Æthiopian tribes, he tells us there was a very similar custom; and Dulaure asserts that it existed also at Carthage and in parts of Greece. The account which Herodotus gives of the Lydians, though not so clear, seems to indicate a similar law. The Rev. Joseph Roberts relates (*p.* 9) that in Madura, Balane, and other places, beautiful virgins used to go to the temple once in their lives to offer themselves in honour of the goddess, the story being that a god had converse with them. That the special marriage was an infringement of these communal rights, for which some compensation was due, seems to Sir John Lubbock the true explanation of the offerings which virgins were compelled to make before being permitted to marry. Among the Santal, one of the aboriginal Indian tribes, marriages take place once a year, mostly in January. For six days, all the candidates for matrimony live in promiscuous concubinage; after which only are the separate couples regarded as having established their right to marry. In the patriarchal history of Scripture, and in the early accounts of the manners of ancient nations, the daughter was always considered the property of the parent, the wife as the purchase of the husband, and the marriage-contract as the deed of transfer. This is still the foundation of the Hindu marriage ceremony, and

the Muhammadan bridegroom by the dower purchases his wife of herself.

Arrian mentions (*Indica*, cap. xvii.) an ancient Hindu practice of giving their daughters to the victor in prescribed trials of force and skill; and a memorable instance of this is related in the *Mahabharata*, of Arjuna, one of the Pandu, by his skill in archery winning Draupadi at her *Swayamvara* tournament.

Capture.—Among the Khand, the boy's father pays a price for the girl, and usually chooses a strong one, several years older than his son, usually about 14 years old, the boy about 10. A feast is held, and the girl is forcibly carried off. The primeval custom of capture of wives continues to have symbolic representations. The old Norse for marriage is *quan-fang* or wife-catching; the German is *brut loufti* or bride-racing.

In *Circassia*, weddings are accompanied by a feast, in the midst of which the bridegroom has to rush in, and, with the help of a few daring young men, carry off the lady by force, and by this process she becomes his lawful wife. According to Spencer, another important part of the ceremony consists in the bridegroom drawing his dagger and cutting open the bride's corset. Mr. Lecky tells us (i. p. 338) that amongst the Greeks and the Romans, the bride was girt with a girdle, which the bridegroom unloosed in the nuptial bed, and hence *zonam solvere* became a proverbial expression for *pudicitiam mulieris imminuere*.

Among the Kalmuk, Dr. Hell tells us that, after the price of the girl has been duly agreed on, when the bridegroom comes with his friends to carry off his bride, a shan resistance is always made by the people of her camp, in spite of which she fails not to be borne away on a richly-caparisoned horse, with loud shouts and *feu-de-joie*.

Amongst some of the Mongol tribes, the girl mounts on horseback and flees, pursued by the lover, who only detains her as a wife if he overtake her. The girl is first mounted, and rides off at full speed. Her lover pursues; if he overtake her, she becomes his wife; after this she returns with him to his tent. But it sometimes happens that the woman does not wish to marry the person by whom she is pursued; in which case Dr. Clark was assured that no instance occurs of a Kalmuk girl being thus caught, unless she have a partiality to the pursuer. Among the Tungus and Kamtskadale, says Ernan, a matrimonial engagement is not definitely arranged and concluded until the suitor has got the better of his beloved by force, and has torn her clothes. Attacks on women are not allowed to be avenged by blood, unless they take place within the court or house. The man is not regarded as to blame, if the woman have ventured to leave her natural place, the sacred and protecting hearth. Pallas observes that in his time, marriage by capture prevailed also among the Samoyede.

Major Dalton mentions (p. 253) that among the Kol of Central India, when the price of a girl has been arranged, the bridegroom and a large party of his friends of both sexes enter with much singing and dancing, and seeming fighting, in the village of the bride, where they meet the bride's party, and are hospitably entertained. Occasionally, a few of the young man's friends assemble outside the fields where the women are at work, and rush on them to capture the girl he has fixed on, carrying her off

from amongst the labourers, though a defeat and rescue are not uncommon. Kurku girls in Central India go through the form of preventing the removal of a bride. When they get near enough to the cavaliers, they pelt them with balls of boiled rice, then coyly retreat, followed, of course, by the young men; but the girls make a stand at the door of the bride's house, and suffer none to enter till they have paid toll in presents to the bridesmaids.

The Gond of Nimar serve for a wife, but practise forcible abduction of the bride, with a mock fight. They are polygamic. Mandla Gond have the *Lamjana Shadi*, in which the betrothed lad serves an apprenticeship for his future wife. A Gond girl, however, may exercise her own will and run off with a man, but it is quite allowable for her first cousin, or the man whom she has deserted, to abduct her from the man whom she has chosen. Their *Shadi Bandhone* is a compulsory marriage. In their *Shadi Baitho*, a woman goes to a man's house. Widows re-marry either to a younger brother of the deceased husband, or to some other man. The men and women of the Gond along the banks of the Wardha river are never associated in their labour, but work at a distance apart. A Gond having ascertained that an adjacent village has a girl whom he would like, goes with some friends to the place where she is working, and rushes to seize her. His companions will not aid him to carry her away by force, unless he, unaided, succeed in touching her hand before she reach the shelter of her village. The women often contest every inch of the ground with their pursuers, inflict very serious hurt, and often shameful defeats. The touching by the bridegroom once effected, the marriage contract is complete, and cannot be broken. But the contest continues even after the bridegroom has touched the bride's hand; and if the fight has drawn to the skirts of the village, the men join the women, and pursue the runners back to their own village.

Writing of the Khand race of Orissa, Major-General (Sir John) Campbell says that on one occasion he heard loud cries proceeding from a village close at hand. Fearing some quarrel, he rode to the spot, and there he saw a man bearing away upon his back something enveloped in an ample covering of scarlet cloth; he was surrounded by 20 or 30 young fellows, and by them protected from the desperate attack made upon him by a party of young women. On seeking an explanation of this novel scene, he was told that the man had just been married, and his precious burden was his blooming bride, whom he was conveying to his own village. Her youthful friends were seeking to regain possession of her, and hurled stones and bamboos at the head of the devoted bridegroom, until he reached the confines of his own village.

Dulha Deo is a favourite deity in Bundelkhand and amongst the Gond of Central India. It is the apotheosis of a bridegroom (*dulha*), who died in the marriage procession, and whose death so affected the people that they paid him divine honours. The worship of Adonis is similar, and also that of *Thammuz*, whose annual wound in Lebanon still allures the Syrian damsels to lament his fate.

The custom of capture is also to be traced in

the rite of lifting the bride over the doorstep, which has prevailed in such different and distant races as the Romans, Redskins of Canada, the Chinese, and the Abyssinians. Hence, also, perhaps the honeymoon of England, during which the bridegroom keeps his bride away from her relatives and friends; hence even, perhaps, as Mr. M'Lennan supposes, the slipper is in mock anger thrown after the departing bride and bridegroom. Amongst the people of Tucupoia, the man has to gain the affections of his intended bride, but that step having been accomplished, he sends three or four of his friends to carry her off by force.

The marriages of the Jakun of the Malay Peninsula are ordinarily celebrated about the months of July and August, when fruits are plentiful. The bridegroom frequents for some time the house of his intended, and when he has obtained her consent, he makes a formal demand to the father. On the appointed day an entertainment is prepared, the bridegroom repairs to the house of the bride's father, where the whole tribe is assembled. The dowry given by the man to his intended is delivered, and must consist at least of a silver or copper ring, a few cubits of cloth; perhaps a pair of bracelets or other ornaments and furniture are added. Amongst some Jakun tribes there is a dance, in the midst of which the bride-elect darts off into the forest, followed by the bridegroom; a chase ensues, during which, should the youth fall down, or return unsuccessful, he is met with the jeers and merriment of the whole party, and the match is declared off. Or if the tribe be on the bank of a lake or stream, the damsel is given a canoe and a double-bladed paddle, and allowed a start of some distance; the suitor, similarly equipped, starts off in chase. If he succeed in overtaking her, she becomes his wife; if not, the marriage is broken off. But the chase is generally a short one, for though the maiden's arms are strong, her heart is soft and her nature warm, and she becomes a willing captive. Or if the marriage take place where no stream is near, a round circle of a certain size is formed. The damsel is stripped of all but a waist-band, given half the circle's start in advance, and if she succeed in running three times round before the suitor come up with her, she is entitled to remain a virgin; as in the other case, but few outstrip their lovers.

Among the Aheta of the Philippine Islands, when a man wishes to marry a girl, her parents send her before sunrise into the woods. She has an hour's start, after which the lover goes to seek her. If he find her and bring her back before sunset, the marriage is acknowledged; if not, he must abandon all claim to her.

Exogamy and *Endogamy* both prevail in the Indies. Some races through all ages have been carefully abstaining from marrying in their own tribe, while others take their wives from amongst their own people. The instance may be mentioned of Abraham sending his servant to obtain for his son Isaac a wife of his own people; and about the year 1860, a Kayast Hindu family in Madras sent the son for a wife to Benares, 1000 miles away. At the present day, amongst the Brahmans and Rajputs of British India, throughout Western and Eastern Africa, in Circassia, Tartary, Siberia, China, and Australia, as well as in North and South

America, marriages take place between persons of different tribes. All Brahmans marry with women who have not the same pravara, i.e. who do not invoke the same Rishi as their ancestor (Asvalayana, xii. p. 15). Apastamba says, 'Thou shalt not give thy daughter to a man belonging to the same gotra or family.' Yajñawalkya says, 'Let a man marry a woman who is free from disease, who has brothers, and who is not the daughter of a man having the same ancestors, and belonging to the same gotra as himself.'

Burton says that some clans of the Somali will not marry one of the same, or even of a consanguineous family; and the Bakalari have the same rule. In India, the Warali tribes are divided into sections, and no man may marry a woman belonging to his own section. In the Magar tribes the same rule prevails. Col. Dalton tells us that the Ho, Mundah, and Oraon are divided into clans or keeli, and may not take to wife a girl of the same keeli. The Garo are divided into mahari, and a man may not marry a girl of his own mahari. Mr. McCulloch tells us that the Manipur and other tribes inhabiting the hills round Manipur, the Koupui, Mow, Maram, and Murring, are divided into four families,—Kumrul, Luang, Angom, and Ningthaja. A member of any of these families may marry a member of any other, but the intermarriage of members of the same family is strictly prohibited. General Campbell and Major Macpherson mention that the Khand regard it as degrading to bestow their daughters in marriage on men of their own tribe; consider it more manly to seek their wives in a distant country; and regard marriage between people of the same tribe as wicked, and punishable with death. The Kalmuk, according to Dr. Hell, are divided into hordes, and no man can marry a woman of the same horde; the bride, says Bergman, is always chosen from another stock, among the Dubet, for instance, from the Torgot stock, and among the Torgot from the Dubet stock. The same custom prevails among the Circassian and the Samoyede. The Ostiak regard it as a crime to marry a woman of the same family, or even of the same name. Amongst the Chinese, exogamy is so severely adhered to, that a man must not marry into a family with the same family name.

It had long been known, from the researches of Sir George Grey and Mr. Gideon Scott Lang, that marriage laws like those of the Red Indians, the people of Ashantee, and many other backward races, prevailed among most tribes of the Australian blacks. They were divided into stocks, each of which was named after some animal or plant. No man might marry a woman who bore the same stock name and the same cognisance. A man of the Kangaroo stock might not marry a woman of the Kangaroo stock, but he might marry an Emu woman, or a Wombat woman, and so forth. Children took the stock name and cognisance of the mother. These cognisances are now usually called totems, from their Red Indian name.

Among the ancient Jews, Abraham married his half-sister, Nahor married his brother's daughter, and Amram his father's sister; this was permitted because they were not regarded as relations. Tamar also evidently might have married Amnon, though they were both children

of David. 'Speak unto the king,' she said, 'for he will not withhold me from thee;' for as their mothers were not the same, they were no relations in the eye of the law.

Some of the Bedouin, also another Semite race, unmistakably follow the rite of marriage by capture; and yet a man can claim to marry his cousin, if only he be willing to give the price demanded for her, and amongst the Muhammadans of Arab origin, in the Peninsula of India, to wed the maternal uncle's daughter is a recognised right.

The Koch'h and the Ho are forbidden to marry excepting within the tribe. But the latter are not thoroughly endogamous, for they are divided into keeli or clans, and may not take to wife a girl of their own keeli. Thus they are in fact exogamous.

The Toda race, according to Metz, are divided into five distinct classes, known by the names Peiky, Pekkan, Kuttan, Kennae, and Tody; of which the first is regarded as the most aristocratic. These classes do not intermarry with each other, and can therefore never lose their distinctive characteristics.

Among the Yerkala of Southern India, the first two daughters of a family may be claimed by the maternal uncle as wives for his sons. With them the value of a wife is fixed at twenty pagodas. The maternal uncle's right to the first two daughters is valued at eight, out of twenty pagodas, and is carried out thus: if he urge his preferential claim, and marry his own sons to his nieces, he pays for each only twelve pagodas; and similarly, if he, from not having sons or any other cause, forego his claim, he receives eight pagodas of the twenty paid to the girls' parents by anybody else who may marry them.

The Doingnak of the Arakan Hill tracts, a branch of the Chuk-ma, appear to have been endogamous. Captain Lewin mentions that during the chieftainship of Janbux Khan, about 1782, the chief passed an order that the Doingnak should intermarry with the tribe in general. This was contrary to ancient custom, and caused discontent and eventually a break in the tribe.

The Kalang of Java, who have some claim to be regarded the aborigines of the island, are endogamous, and when a man asks a girl in marriage he must prove descent from their peculiar stock.

The Manchu Tartar race forbid marriages between those whose family names are different. In Guam, brothers and sisters used to intermarry, and it is even stated that such unions were preferred as being most natural and proper.

With the royal family of Burma, the custom is continued of half-brothers and half-sisters marrying. The king's eldest daughter remains unmarried. The Siamese rulers also marry their half-sisters.

Endogamy would seem to have prevailed in the Sandwich Islands and in New Zealand, where, as Yate mentions, 'great opposition is made to any one taking, except for some political purpose, a wife from another tribe; so that such inter-marriages seldom occur.'

Polygamy.—The Hebrew Bible shows a progressive change in Jewish views on women. The elevated conception of marriage presented in the record of the creation, testifies to a most profound sense of the sacredness of monogamy as the most intimate possible union of two persons; and the Canticle of later times is a song of wedded love

and fidelity. Yet, at the outset, the right of woman to choose her lot seems to have been wholly disregarded, as Abraham twice permitted Pharaoh to have Sarah, Judah condemned his daughter-in-law to be burned; a thousand years afterwards, God threatened to give David's wives to his neighbours or to his son; Michal was transferred to Phalti from David by Saul, who had quarrelled with David; and at that era kings of David's tribe habitually succeeded to their predecessors' wives. Polygamy was not prohibited amongst the Hebrews, but there is nothing to warrant the terrible seraglio customs depicted in Judges, and instituted by David and Solomon as regal.

In later Jewish history, the idea came to be that it was better for a woman to be a transferable concubine than to die an old maid, and virginity and childlessness were the only lots bewailed under the later Old Testament regime. A writer in the Westminster Review observes that wherever the regime has been theocratic, as in the Jewish and Papal theocracies, there woman has fared the worst; and her position has been most favourable wherever a strong, rough, moral sense of individual right, as in pagan Greece and Rome, has been dominant. In pagan Rome, seclusion was not known, but on its change to Christianity this became prevalent, divorce became impracticable; and while woman, theologically, was pronounced to be queen of heaven and mother of God, she became a mere chattel of her husband.

Polygamy has prevailed in Asia generally from the most ancient times, but as a rule it has been practised only amongst the rich and luxurious, or by those whose first wives gave no children, or amongst tribes whose traditions and customs compelled them to raise up seed to their deceased brethren. The Vedas, however, recognise monogamic marriages, the union of one man and one woman, as the natural state; husbands and wives are described in the Rig Veda (Mand. i. Hymn 131, v. 3; also Hymn 43) as presenting their oblations two and two together, and at another place (Mand. ii. Hymn 39) a husband and a wife are given amongst other illustrations of pairs. On the other hand (Mand. i. Hymn 126), a young rishi named Kakshivat celebrates the generosity of a raja who had given him his ten daughters in marriage. Amongst ancient mountain tribes on the western parts of the Himalaya, known as Gandharva, and supposed to be the modern Kandahar, the practice was at one time prevalent amongst the Kshatriya tribes of forming a union by mutual consent, and associating together without any preliminary ceremonies. The Brahmanical legislator Manu (ch. iii. v. 26-32-41) recognises the legality of such marriages, but declares none but the Kshatriya race may contract them; he denounces them as base unions, the offspring of which will act cruelly, speak untruthfully, and abhor the Vedas. Such pairings, in the present day, are not known to occur.

Manu says there are eight forms of the nuptial ceremony used by the four classes, some good and some bad in this world and in the next. They are termed—

Brahma, the gift of a daughter to a Brahman learned in the Vedas, voluntarily invited.

Deva, the gift of a daughter to the officiating priest at a sacrifice.

Arsha, or that of the *Rishis*, in which the father receives from the bridegroom the gift of one or two pair of kine.

Prajapatya, the *Oppu* of the Tamils, that of the *Prajapati* or patriarchs, in which the father gives away his daughter with due reverence.

Aura, that of the *Aura*, the *Arumponi Vinai* of the Tamils, in which the bridegroom makes valuable presents to the father and relatives of the bride.

Gandharva, in which the parties are mutually agreed. This is considered to include the *Swayamvara*, in which a princess voluntarily chooses a husband.

Rakshasa, the violent abduction of a maiden after defeating or slaying her relations.

Paisacha, the violation of a girl when asleep, or in liquor, or of weak intellect.

Manu says, 'The first six ceremonies in direct order are by some held as valid in the case of a priest,' etc. Manu utterly reprobates the idea of *Gandharva* marriage. In chap. iii. para. 32, he says that by the *Brahma*, *Deva*, *Rishi*, and *Prajapati* marriages only are born sons illumined by the *Veda*, learned men, beloved by the learned, adorned with beauty and with the quality of goodness, wealthy, etc., performing all duties, and living a hundred years; while from the other four marriages are produced sons acting cruelly, speaking falsely, abhorring the *Veda* and the duties prescribed in it. And further, he declares that the son of a *Brahma* marriage, or wife by the first ceremony, redeems from sin if he perform virtuous acts, ten ancestors, ten descendants, and himself the twenty-first person. A son born of a wife by the *Deva* nuptials, redeems seven and seven in higher and lower degrees; of a wife by the *Arsha*, three and three; of a wife by the *Prajapatya*, six and six. 'From the blameless nuptial rites of men springs a blameless progeny; from the reprehensible, a reprehensible offspring. Let mankind, therefore, studiously avoid the culpable forms of marriage.' 'By culpable marriage, etc., great families are sunk to a low state.'

Adi Sur, the founder of the *Sen* dynasty, brought from *Kanauj* five *Sagnic* Brahmins of the tribes or gotra *Sanhila*, *Kashyapa*, *Vatsa*, *Savarna*, and *Bharudwaja*. *Sudra* families, *Ghose*, *Bhose*, *Dutt*, *Mittra*, and others, accompanied them, and these take the position of *Kulin Kayasths*. In the reign of *Bullal Sen*, about 284 years before the *Muhammadan* invasion, all these *Kulin Brahmins* and *Kulin Sudras* had greatly increased, and though degenerated in learning, they arrogated to themselves a position above all the *Sapta-sali* or aboriginal Brahmins. *Bullal Sen* ennobled the Brahmins by giving to them the title of *Kulin*. The *Kulin Brahman* subsequently consented to marry the daughters of the aboriginal Brahman; these eagerly seek alliances with the *Kulin*, who have established a scale of fees for condescending to accept a daughter of an inferior. They marry for gold. Of the *Kayasths* who came from *Kanauj*, *Bhose*, *Ghose*, and *Mittra* were ennobled by *Bullal Sen* with the title of *Kulin Kayasths*. *Dass*, *Day*, *Dutt*, *Guba*, *Kar Paulit*, *Sen*, and *Singh* hold a second rank.

Kulin Brahman women are married with difficulty, and generally to aged men. In 1868, there were 11 *Kulins* in *Hoogly* and 1 in *Bardwan*, each of whom had contracted 50 to 80 marriages; 24 in *Hoogly* and 12 in *Bardwan*, who had contracted from 20 to 50 marriages; and 48 in *Hoogly* and 20 in *Bardwan*, who had contracted between 10 and 20 marriages. *Kulinism* is thus

a great polygamic institution, and a few women have become prostitutes. In 1867 the abolition of this polygamy was contemplated, and will doubtless be carried out. *Kulin* marriages are sought after by the relations of the females, to keep up the honour of their families; and the children of these marriages invariably remain with their mothers, and are maintained by the relations of the females. In some cases a *Kulin* father does not know his own children.

Women unmarried.—It is not possible to learn from the legends of India all the marriage customs formerly prevailing in it. Several of its numerous races, from the most ancient times, have kept themselves distinct from each other, and the evidence of the *Mahabharata*, of the *Ramayana*, the *Institutes of Manu*, the *Puranas*, and the *Vedas* can only be accepted as relating to portions of the inhabitants. When we read that in the famous Indian city of *Vesali*, 'marriage was forbidden, and high rank attached to the lady who held office as chief of the courtesans,' such must be regarded as an exceptional or local condition, of which, even yet, in British India, there is an instance in a town in North Canara, in the Peninsula. It is stated that when *Sakya Muni* in his old age visited *Vesali*, he was lodged in a garden belonging to the chief of the courtesans, who droyo out to visit him, attended by her suite in stately carriages. Having approached and bowed down, she took her seat on one side of him, and listened to a discourse on *Dharma*. . . . On re-entering the town she met the rulers of *Vesali*, gorgeously apparelled, but their equipages made way for her. They asked her to resign to them the honour of entertaining *Sakya Muni*, but she refused, and the great man himself, when solicited by the rulers in person, also refused to break his engagements with the lady. This custom, of the temple dancing-girls advancing to meet a great man, is still prevalent, and they show this honour alike to a governor or a bishop. Until recently, the *Deva-dasa*, or slaves of the idols, were the only educated Hindu women in India. All the great Hindu temples have bands of the *Deva-dusas*, who follow their trade without public shame; and a woman born of, or adopted by, one of the temple slave women is not held to pursue a shameless vocation, though other women who have fallen from good repute are esteemed disgraceful. The explanation of this is that every Hindu, according to the *Institutes of Manu*, is pure in his or her own vocation, and the *Deva-dasa* continue the old custom of the country, under solemn religious sanction. Caste women, on the contrary, who have given way to lawless inclinations, have outraged public feelings, have probably broken their marriage vows, and brought disgrace on their families. At the present day, the Hindu weaver races near *Chingleput*, 35 miles from *Madras*, devote the eldest daughter to the temple, and all classes of Hindus, in time of trouble or in hope of offspring, vow their girls to the temples.

Polyandry now prevails in Tibet, is common in the Himalayan and sub-Himalayan regions adjoining Tibet; in the valley of *Kashmir*, in *Spiti*, in *Ladakh*, in *Kishtwar*, in *Sirmor*, in the *Siwalik* range, in *Khasya*; there are unmistakable traces of its existence, till recently, in *Garhwal*, *Sylhet*, and *Cachar*; and it is still prevalent among the *Toda* of the *Neigherry Hills*, the

Coorg, the Maleala Sudra, and other castes of Malabar, Canara, and Travancore; also in Ceylon amongst the Kandyan race, and farther east, is an ancient though now almost superseded custom; in New Zealand, in one or two of the Pacific Islands, and in the Aleutian Islands; also to the west and north of the Aleutian, among the Koryak to the north of the Okotsk Sea; and, crossing the Russian empire to the west side, we find polyandry among the Saporogian Kazak. It is also found in several parts of Africa, and, according to Humboldt, it is prevalent in America among the tribes on the Orinoco, and he vouched for its former prevalence in Lancerota, one of the Canary Islands. But the forms in which it has been followed have varied. Cæsar found it in Britain; as it exists in Tibet and in the Western Himalaya, and Coorg and Kandy, it is limited to brothers. The restricted form known to the Jews and early Hindus, as noticed in Ruth and Manu, in which only the childless widow fell to the brother, is now not heard of.

In the Panjab, among Jat families too poor to bear the marriage expenses of all the males, the wife of the eldest son has sometimes to accept her brothers-in-law as joint husbands. The Ghakkar, the brave people of Rawal Pindi district, are now Muhammadans, but their polyandry was one of the characteristics which specially struck the advancing Muhammadans in 1008. The Karakat Vellalar of Madura, at the opposite extremity of the Peninsula, no longer practise polyandry; but they preserve a trace of it in their condonement of cohabitation with the husband's kindred, while adultery outside the husband's family entails expulsion from caste. The Reddi race of agriculturists in the southern Tamil provinces have a similar custom, in order to preserve their family lands; and the Namburi Brahmans of Travancore, to preserve their family property, allow only the eldest son to marry.

In Ceylon there were two kinds of polyandric marriage, the Diga marriage and the Dina. In the former the woman went to her husband's hut, in the latter the man transferred himself to that of the woman. Moreover, according to Davy (p. 286), marriages in Ceylon were provisional for the first fortnight, at the expiration of which they were either annulled or confirmed.

In most countries, man has arrogated to himself a superiority over woman, and has regarded her duty to be to submit to man's decisions. But the ancient Britons, as also some of the Median Cantons, the Pict, and the Gete, were polyandrous, and the custom is traceable among the ancient Germans. The origin of polyandric customs has been referred to the communist practice still in force amongst Hindus with respect to all property and earnings, for where small parcels of land were to be subdivided amongst families, it was of consequence that the members should continue limited. The scarcity of women amongst a military class of foreign immigrants, and the absence of brothers on pasturing or commercial expeditions, whilst others stayed at home, have also been pointed to.

The Mahabharata relates that Pandu, with money and jewels, purchased Madri from her brother Salya, king of Madra. But in former times the princesses of some parts of India appear to have enjoyed the privilege of selecting a husband from amongst a number of suitors as-

sembled for the purpose at a Swayamvara or tournament. In the Institutes of Manu (book iii. ver. 27), eight different forms of marriage are mentioned, but this right of selection is not one of them. In the 9th book, ver. 9, there is an allusion to it, but it is doubtful whether this has reference to any but the commercial and servile classes: 'Three years let a damsel wait though she be marriageable. After that time let her choose for herself a bridegroom of equal rank.' In Kalidasa's celebrated poem, the *Raghuvansa*, there is a beautiful description of the Swayamvara of Indumati, sister of the king of Vidarbha, in which she chooses Aja, the son of Raghu, out of a large assemblage of royal suitors. In the Mahabharata we have an account of the Swayamvara of Draupadi, the daughter of Drupada, king of Panchala, and afterwards the wife of the five Pandu princes.

From the fact of her marrying the five Pandu brothers, we learn that polyandry must have prevailed amongst some races of that period; and Curao was no doubt not uncommon; indeed, the compiler of the Mahabharata, Vyasa, was himself appointed to raise up offspring to his deceased brother. Herodotus tells us that polyandry prevailed among the nomadic Scythians, as it does at present among the Bhoteah. The practice is adopted also by races in Malabar, between whom and the people of the Himalaya Wilson traces the obscure vestiges of a connection.

It prevails in a household form amongst the people of Coorg, as also amongst the Toda of the Neilgherry, amongst the Kapilli tribe on the Dindigul valley, and amongst the Totti, a Pariah race in Mysore. The Coorg believe themselves to be descendants of the daughters of Chandra Varma, king of Matsa Desha, obtained by the intercession of Parvati. Chandra Varma is said to have come originally to Coorg. They marry at a ripe age, but the wives of brothers are in common. They are a compact body of mountaineers, who have been lords of the soil from time immemorial, and live in farm-houses far apart. The Anna Coorg take among the Coorgs a place similar to that of the Brahmans among Hindus.

The *Kunawar* people may be found as petty traders between Tibet and Hindustan, in almost every hill state between Nepal and Kashmir. The custom of several brothers having but one wife amongst them is universal. The women of the Himalaya really marry a plurality of husbands, usually brothers.

The *Nair* woman has only one married husband, with whom, however, she never associates, but at will receives any other men of her own race. The most recent writer on the Nair customs, the Rev. Mr. Mateer, tells us that the object in going through a marriage ceremony has never been surmised. These Maleala Sudra or Nair customs admit of no real nuptials.

The females of a wealthy Nair family, especially where there is but one sister, are visited at their own homes by Brahmans, or by persons of their own caste; and their children are reared up in the same house, and inherit from their mothers' brothers. Females of poorer families go to reside with partners of their own caste, so long as they agree together, and the average duration of such unions happily is increasing. There is, indeed, a marriage ceremony performed

in the childhood of every Sudra girl; but it is never consummated as a marriage, conferring no connubial claims or obligations on the nominal bridegroom, who has thenceforth no further communication with the girl, and it rather serves to set the girl at liberty, as soon as she arrives at maturity, to form temporary associations, or to change them as she pleases. At any time subsequently, the girl may 'receive cloth' from any suitable man, and consort with him. The subsequent trivial bond, signified by giving and receiving a cloth, is dissolvable with a word at the will and pleasure of either partner. With the Nair there is no fixed rule that the person who married her must not give cloth.

The ceremony called giving a cloth, or agreement for concubinage, is performed in the presence of relatives and neighbours, usually at night. The girl is placed with the man on a mat on the ground, the emblems called lingam and yoni being marked in front. A valuable cloth being offered by the youth, the girl asks her uncle, 'Shall I receive it?' 'Yes.' The same question is put to the mother, who gives her consent. A cheaper cloth is given to the woman's father, mother, sister, brother, and other near relatives. As the succession to the Travancore throne is continued through sister's sons, the unions of the ruling family are those common to the Nairs, except that an Ammachi, or associate of a raja, if put away or widowed, is not allowed to marry any other man. The Ammachi has no communication with the reigning rani. She is not a member of the royal household, has neither official nor social position at court, and cannot even be seen in public with the ruler whose associate she is. Her issue occupy the same position as herself, and the law of Malabar excludes them from all claims to public recognition.

Nairs either go to the woman chosen, give the cloth, and take her home, or reside with her at her brother's house. In the case of the royal family, a number of splendid cloths are sent, and she is brought to the palace of her consort. But, unlike other Sudra unions, the Ammachi, having once been taken by a raja, is required to remain apart from all other men all the remainder of her days, and is guarded in her own residence. It is not all parents that are willing to give their daughters on these terms. The Tangachis, or daughters of the raja, who, like sons, have no titles of rank, are first married in childhood by a Tirmulpād. When one attains to maturity, cloth is given by some one who takes her to wife. The nieces, however, the raja's sister's daughters, who, like nephews, have the titles of highness and rani, are married when young to Coil Tamburans, who afterwards live with them so long as both parties are mutually content. It is not necessary that the same person who nominally married the lady in childhood should actually consort with her in maturity. The princess can choose for herself, and if one consort dies, another is called in. The Coil Tamburans, or Lords of the Temple, are usually regarded as Kshatriyas, and from their rank are chosen the consorts of the princesses of the realm. Several families of this caste reside in the northern part of the Travancore dominions. The Coil Tamburan men give cloth to Sudra females, while the women associate with Namburi Brahmans.

The reigning family has often died out from lack of direct heirs, and has been recruited by adoptions. There are several families of petty rajas in Travancore allied to the maharajas, the principal of whom is the Mavelikara family, from whom adoption of princesses is usually made, and with whom, therefore, close relations of friendship subsist. The present rani was selected from this family in 1858. It is said that the Mavelikara line was itself perpetuated in ancient times from Travancore, mutual adoptions thus producing intimate union between the two houses.

The twelve *Antarāla*, intermediate castes between Brahmans and Sudras, generally called Ambalavasi, temple dwellers, officiate as temple servants. They mostly follow the nepotistic law. Sudras or Kshatriyas have sometimes to pay heavily for engagements with men of higher caste to consort with their families. The nieces of the Cochin rajas, whose male children succeed to the throne, form alliances with the Namburis, who, however, lose to some extent in caste, forfeit all ancestral privileges, and, becoming dependent on their new connections, receive in compensation large marriage portions and separate establishments at the palace. The nieces or sisters of the Travancore royal family intermarry with Kshatriyas only, and this seems to be the sole reason why the Cochin rajas are admitted to be of higher caste to those of Travancore: the former manage to procure Namburi Brahmans as consorts; the latter only Kshatriyas of the Coil Tamburan class. Polyandry is not rare among Sudras, carpenters, Ilavars, and other Marumakkal castes.

Ilavar girls, Mr. Mateer further tells us, are all married in infancy as a mere form, at various ages, from one to nine. The person who marries a girl in infancy does not afterwards live with her. To save expense, several girls are usually married at one time. A pandal is erected. They are taken to the river to bathe, dress, and put on their ornaments. On returning, they are accompanied by the barber-women of their caste, who sing marriage songs, and by men, women, and children of their own people, shouting, blowing snake-horns, and the 'five kinds' of music. At the entrance of the pandal the noisy display is stopped, and the eldest of the brides is prepared for marriage; her face is veiled, and she is carried by one of her cousins and seated on a decorated platform, while the other brides are seated upon the boards, having their heads covered with white and red cloths. On the left side of each girl is laid a plantain leaf, and on this a nari measure, an edungaly measure made of the wood of *Alstonia scholaris*, and filled with paddy, a brass vessel containing an edungaly of rice, and a clean cloth folded, on which half a cocoanut containing a little oil and a wick is placed. A brass lamp is also lit, and laid close to each leaf, in addition to silver rings (worth one fanam each) tied with thread. After other of their customary marriage ceremonies, on the seventh day the ring tied up by the barber-woman is taken off, the wedding is over, and the bride's party give to the mock bridegroom 23 fanams and a bunch of plantain fruit, with five edungalies of rice and a suit of cloth, and conduct him back to his home.

The *Pariats* of Travancore are a strongly-built and bold race. They live in separate hamlets, and eat the flesh of dead cattle, tigers, etc. As

with the Sudras, nephews are the heirs. Their girls are married when very young—as a mere form—by their cousins, but when grown up they are selected by others, who give cloth. Instances occur among them both of polygamy and polyandry.

A native writer, G. E. Varman, says, 'The Muttathu marry females of their own caste; but they only perform a ceremony, while Brahmans cohabit with them, and beget children. Should men of their own caste dare to approach them, it is like incest with a mother,—there is no atonement possible for them,—and such progeny are sacrilegious.'

Among these polyandric races, property is by the women. Colonel Yule says that this remarkable custom of inheritance exists, or has existed, among the aborigines of Hispaniola and tribes of New Granada and Bogota; among Negro tribes of the Niger; among certain sections of the Malays of Sumatra; in the royal family of Tipperah, and among the Kasias of the Sylhet mountains (both east of Bengal); in a district of Ceylon adjoining Bintenne; in Madagascar; in the Fiji Islands; and among the Hurons and Natchez of North America.

In ancient India, the position of the Hindu wife was far more honourable than it is in the India of the present day; and against this degradation of the sex, the Hindu marriage ceremonies, which have descended from bygone ages, make their constant protest, for in them the woman is recognised as the first and greatest blessing the gods granted to man. A Hindu poet has said—

'Woman is man's better half;
Woman is man's bosom friend;
Woman is redemption's source.'

Hindus of Bengal say that the good fortune of a husband depends on that of the wife, hence a woman is an emblem of Lakshmi or Luckee. Girls are taught to offer prayers to all the gods for the gift of a good husband; but in Bengal, Siva and his wife Durga receive the chief invocations, because of Siva's fidelity to his spouse, Krishna being avoided because of his association with the Gopin milkmaids of Bindraban.

The whole spirit of the Hindu ritual is opposed to polygamy, but inculcates firm and undeviating allegiance to each other on the part of both husband and wife.

Age.—A Brahman girl who grows up without being married, loses her caste. The duty of choosing a husband belongs to the girl's father; but should he be dead, it devolves in succession upon the paternal grandfather, brother, paternal uncle, male paternal cousins, and lastly upon her mother. If these omit to perform their duty till after the girl has reached the age of eight, she may choose for herself. She can only marry with those of her own caste, and the preference should be given to the sons of her mother's brother or of her father's sister. It would be considered a dreadful sin to marry the sons of the father's brother or of the mother's sister.

It is a duty imperatively enjoined by the Shastras upon the parents or other relatives, and even friends, to see that a girl does not remain unmarried. In extreme cases people have to obey the letter of the law, by formally marrying to an Ashvattha tree (*Ficus religiosa*), a girl who, after

all efforts, fails to secure a human husband. The artisan goldsmith race deem it so sacred a command to marry their daughters in infancy, that if permitted to grow up unmarried, the families say that it would be a duty to drown themselves. And all Brahman girls ought to be married and taken to their husbands' homes before they leave girlhood.

In all classes of the community there is a general predilection in favour of early marriages both of sons and daughters. Hindu mothers wish to see their sons married soon. If a son of a well-to-do Hindu grow up unmarried, the fact is considered as a stigma on the family, and rumours begin to be circulated against the health or constitution of the boy. A man of good family is showered with offers of a bride for his son; but the age for lads has been increasing in the Presidency towns since the British introduced the education tests for employment, and fathers of girls strive to obtain educated husbands for their daughters. At the 1881 census of British India, out of a total of 123,949,970 females, there were of married, 2,325,688 under 9, 5,616,460 from 10 to 14 years old; and of these respective periods of life, 78,976 and 207,388 were already widows. The widows between 15 and 24 years of age numbered 1,134,705.

According to Dr. Buhler, Manu, Gautama, and Baudhayana, though they recommend early marriages, allow the father to keep his daughter at home up to the age of thirteen, after which age daughters were permitted to choose husbands for themselves. The Smartha Brahmans admit that this is the more ancient rule, and some of the Grihya Sutra show that marriages with women as well under as of more than full age were permitted by law, and, indeed, that infant marriages were not in force during the Vedic age of the Aryans. It is in the Smriti Shastras that infant marriages are enjoined, and one class of these works, to which the Samvarta, Angirasa, and Parasara belong, limit the marriage age much more than Manu. The Rig Veda seems opposed to infant marriage. Amongst the Riks which are recited at the marriage ceremony, there are some which express the belief that the bride belongs to the three gods of the Vedic times,—Soma, the moon; Gandharva; and Agni, the fire-god,—before she passes into the possession of mortal man. The bridegroom prays to Agni and Gandharva to cede the bride to him, and afterwards proclaims aloud that Agni has freed her,—Agni has given up his right of possession. A Hindu author, Gobhila-putra, asserts this to be an allegory, and that a girl falls into the power of Soma when inguen pube contegitur; into the power of Gandharva when mamma ejus intumescunt; and into that of Agni on the occurrence of the *Καραμυνία το πρώτον*. But Gobhila-putra's suggestion is not reconcilable with the fact of the existing ceremonial at marriage, also that, amongst the present Hindus, married women can always be pointed out, fair and comely, but childless, who are supposed never to have been released from the deity, and others whose offspring are supposed to have been begotten under celestial influence. These are current beliefs. In Vedic times, then, every bride must have been grown up. With the bridegroom, though they too, but not so invariably, are married while still boys,

the existing laws, though now wholly neglected, plainly preclude marriage till maturity; for a Hindu can only enter on his student life when seven or eight years of age, and as this term lasts nine years at the shortest, a Hindu lad cannot by law marry till 17 years of age at least, which is absolute manhood. With the Dravida races, though the bride is almost invariably under age, often a mere child, and may reside from time to time with her husband's parents, there is no association till she have been a second time unwell.

Ritual.—The minute ceremonials of marriage considerably vary. The Brahman and the five artisan classes are not permitted by the social customs to ride on horseback when in procession, Sudra Hindus and the non-Aryans asserting their exclusive right to that honour. The artisan races do not acknowledge Brahmans, do not permit them to perform their marriage ceremonies, but they are not allowed to use the plantain for ornament.

When seated, the girl is formally given to the husband (Kania-danam), literally spinster-giving. A priest blesses some water in a small vessel, and the father of the girl, taking this and his daughter's right hand, places them together in the bridegroom's right hand, saying, I do this that my father, grandfathers, and great-grandfathers may attain Swarga. The bridegroom then rising, and standing before the bride, amidst the deafening din of tom-toms, ties round her neck the mangala sutram, a thread coloured with turmeric, to which a golden jewel, called bottu or talai, is attached. Sandal-wood paste, perfume, and flowers are presented to the guests; betel-nut is offered to all relatives and friends, and money presents are made. The married couple receive Asir-vadam, benedictions and congratulations from the assembly, and as they prostrate themselves at their parents' feet their parents bless them. In Northern India part of the marriage ceremony consists in tying a string or thread round the wrist of the bride; and with many of the races in India, whether of Aryan or Turanian descent, part of the marriage ceremonial consists in tying the corners of the bride and bridegroom's cloths together (Phylu bandhna), and causing them to circumambulate the village deity. There is also the ceremony of Sat-phéri, or seven turns round the sacrificial fire.

A marriage procession in the north-west of India has many elements different from those in Bengal. The Basanti, spring months of April and May, being considered as the most auspicious season, hymeneal processions may then be daily witnessed in any of the great cities. In the north-west, the bridegroom, instead of being carried in a palanquin, and followed quietly by a crowd of guests, proceeds on horseback, with musicians playing right and left, and a band of female songstresses singing songs suited to the occasion.

The married Hinduan of Bengal during their husbands' lifetime wear an iron bracelet or a bit of iron twined round with a piece of gold wire. The wives of the agricultural Od-chasa race in Orissa wear bracelets so long as their husbands live; but the Mahinti and other Uriya tribes throw off their brass kharu or bracelets as soon as they can afford to purchase ornaments of the more precious metals. The pote or bead necklace is tied on the Hindu and Muhammadan bride of

Northern India. Wedding rings of stones are erected by Baluch nomades as a memorial. Sakhisungbad and Biraha are love songs sung by Brahman women on the first occasion of a bridegroom and bride being left together.

Marriage in Hindu law is indissoluble, and it is to be of one wife; except that if a wife be barren for eight years, or for eleven years have no male offspring, or be drunken, or immoral, or extravagant, or bear malice to their husbands, a second wife may be taken; but the first wife is always the head of the house. A wife who quits her husband's house, or neglects him for a twelvemonth, may be deserted altogether.

There are five things considered essential to the Hindu marriage ceremony, viz. the betrothal, the gift of the virgin, the acceptance, the seizure of the hand, and the seven steps or Sapta-padi. In giving away the virgin, the girl's father or guardian must say, in the presence of the Brahmans, to the father of the bridegroom: 'I give you, for your son, my beautiful virgin daughter; accept her therefore.' The father of the youth replies: 'With my mind, with my voice, and with my body I joyfully accept thy daughter for my son, and religiously receive her among my own kindred.' The girl's father then declares his gotram (tribe), and gives grains of rice tinged with red and betel leaves to the bridegroom, declaring again that he gives him his daughter, and promises to defray all the expenses of the marriage. With the girl there should be given one or more cows, some land, and a salagram stone.

The girl's father next makes a solemn declaration in the presence of the assembled Brahmans, thus: 'O Brahmans! to this youth M., learned in the Vedas, the son of N., to him I give my daughter, dressed in gay apparel, and adorned with gems.' The Brahmans answer: 'Tatha astu,' So let it be. The father-in-law having taken the hand of his daughter, now puts it into the hand of the bridegroom, and pours over them water sacred to Vishnu. The pouring of water, according to eastern custom, makes a gift irrevocable, and the marriage should be now complete. The Sapta-padi, and the ceremony of tying on the Tali, have, however, been superadded. The wooden yoke of a bullock used to the plough is brought, and lightly laid upon the head of the bride. A veil is then held up between her and the bridegroom, and the mangala ashtaka or eight auspicious verses are recited. They form a canticle calling upon the gods, the saints, the trees, the hills, and the rivers to witness and to be auspicious to the union. The veil then falls, and the bridegroom binds a golden ornament, called the Tali, around the neck of the bride. This can never be removed except in the unhappy event of her becoming a widow. Then follow the homam or sacrifice to Agni, the god of fire, in which the bride and bridegroom take together the Sapta-padi, or seven steps, amidst the loud chanting of the Vedas. From this observance the term Sapta-padinam has become synonymous with friendship; and it is common for two persons to swear eternal friendship by taking seven steps together. Next comes the ceremony of eating, what is called Madhu parkam, literally mead mixture. Grains of parched rice are now substituted, but the name of the ceremony is still allowed to perpetuate the memory of the fact, that in times past the

Brahmans did not scruple to drink fermented liquors, although they now strictly prohibit their use. On the third day after marriage, the attention of the bride is directed to a small star named Arundhati, near the constellation of the Great Bear, and she is exhorted to follow the chaste example of Arundhati, the wife of the rishi Vasishta, who, on account of her conjugal fidelity, was deified and placed among the stars. On the fourth night a torch-light procession sets out, and the bride and bridegroom are carried round and round the village in a palanquin, with music and dancing. This goes on till sunrise. They are then conducted home, and are received at the threshold by some married women, whose husbands are still living, for the sight of a widow at such a time is considered most inauspicious. They are then seated, and a lamp is waved round their heads to avert the ill effects of the evil eye; and for the same purpose the bride sometimes wears a coral bead with the jewel of her Tali. Somewhat in the same way as the English send round wedding-cake and cards, the Hindus distribute betel leaves with the nut of the areca palm, and grains of rice coloured red. The friends of the bride now come to offer their congratulations, and a common wish at this time is: 'May you live long and bear sixteen.'

Expenses at the marriages of several of the races of India are very heavy. Among Shrimali Vania and Oswal Vania it is difficult to secure a bride unless the bridegroom spend between 2000 and 3000 rupees for her. The number of Shrimali and Oswal Vania among the Jains is no less than 32,280, or more than two-thirds of the entire Jain population of Baroda. Besides this, their commercial and trading tendencies oblige many of them to leave their homes, and thus they are obliged to remain single. Moreover, the daughters of Shrimali Vania are returned as Hindus when they are married to Meshri or Vaishnava Vania. The Shrawaks often give their daughters to the Vaishnava, while the latter but rarely give their daughters to Shrawaks.

The ruling family of Rewah have been dominant in that state for many generations. They are much respected by the people and neighbouring chiefs, taking daughters in marriage from the very highest and proudest houses in Hindustan. About the year 1874 one bride was said to have taken with her a dower of five lakhs of rupees.

The dowry in Tamil marriages is regulated according to a fixed scale, the highest caste being rated lowest. That of a maiden of the Vellalar, the first in rank of the Tamilian agricultural castes, was formerly 11, and is now 21 pon, which in everyday usage are represented by 38½ and 73½ rupees, —a pon being equal to a pagoda. In addition to the dowry, the bridegroom's parents give another pon tied up in a piece of cloth, under the name of Mulei pal mudichi, or Mulei pal kuli, literally breast-milk packet, or breast-milk hire, typifying that the expenses of the bride's rearing are thereby discharged, and that she has become thenceforth the purchased property of her husband.

The passages in Manu as to the purchasing a bride by a dower are contradictory; possibly the practice varied, as now, with the different races. With the agricultural classes of the N. W. Provinces, the bride's father purchases the bridegroom by gifts of money and household utensils. When

Prithi-raj carried off the daughter of Jye-chand, her father nevertheless sent to him the richest gems, the fruit of the victory of Biji Pal, inestimable wealth, pearls, elephants, and dyes. And when Prithi-raj married the daughter of Dahinna of Biana, her father gave him 8 beauteous damsels, 63 female slaves, 100 Irak horses, 2 elephants, 10 shields, a pallet of silver for the bride, 100 wooden images, 100 chariots, and 1000 pieces of gold. This costly system has its origin in the desire to marry a daughter into a higher family. The dread of these marriage expenses and pride of race led to infanticide. They chiefly went in presents to Bards, Charans, and Brahmans. If the legend can be trusted, when Sita was married to Rama the palace of Janaka was full of Brahmans—

'How many thousand Brahmans here,
From every region far and near,
Well versed in holy lore appear.'

But Muhammadans of India also have a profuse expenditure. In the year 1850, when the foster-brother of the nawab of the Carnatic was married, about £10,000 were expended in idle ceremonial. More recently, a Gaekwar of Baroda, on the demise of his first wife, married a second time. The procession passed on its way, winding through the city till it arrived at the bridal abode, which was very tastefully ornamented and fitted up. The bride was modestly and thickly veiled. The bands played, the guns thundered a royal salute, the soldiers fired a feu-de-joie—

'Twas not the air, 'twas not the guns,
'Twas not the feu-de-joie that runs
Fair up and down the double rank,
But one glad shout that softly sank,
At once a thousand voices said
"It is the veiled Marathi maid."

The bride, as is customary, sat on a basket, her royal lover sat in front of her, and fine cords were then wound round the two contracting parties to betoken the indissoluble nature of the bond between them.

Wealthy Hindu families often marry their daughters into poor families in order to keep their son-in-law under their own roofs. These are called Ghar-jamai, or home-bred son-in-law. A son-in-law of the Kulin race is particularly desired, but the position is deemed degrading. In some cases in Baroda the father of a Hindu girl retains a lad in his house, and the girl and the lad live as man and wife without being united in marriage. In such cases the lad is called Ahariyo or Asariyo. In other instances the bridegroom-elect has to serve his father-in-law for five years before he is entitled to take away his bride. He is then called Bandadiyo.

Widows.—With the Koupoi tribe of the Nagas of the N.E. frontier, on the death of a man's wife, her father or next-of-kin demands the price of her bones (Mundoo) from the widower-husband. Their widows are taken by the deceased husband's brother. It was a custom amongst several Scythic races for widows to burn themselves, or be buried alive, or to be destroyed by the sword or dagger, and interred along with their husband's remains. This practice prevailed in the East Indies up to the middle of the 19th century, when it was prohibited by the British, but it is still followed in the island of Bali, in the Eastern Archipelago. In a Government notification in the Foreign

Department, Simla, the 7th April 1847, the Governor-General expressed much satisfaction in republishing a proclamation by the Gwalior darbar, prohibiting the practice of sati within the territories of maharaja Sindia. The Governor-General also, in 1847, republished documents prohibiting female infanticide in Jeypore, and limiting the demands of the religious Bhat, Charan, Dholi, and Merasi sects on occasions of marriages in Rajput families.

Re-marriage of Brahman and Rajput widows is never permitted; and though re-marriage is lawful by the Muhammadan law, the followers in India of that religion have largely adopted the Hindu practice. In some of the other Hindu castes a woman may re-marry more than once.

Much attention is at the present time directed towards this portion of the Hindu code. An influential sect of theists, the Brahmo Samāj, followers of Ram Mohun Roy, use a revised ritual, in which, while idolatrous invocations of the Vedic and Puranic deities are suppressed, and the One without a Second is entreated to sanctify the union, the ceremonies which are not idolatrous, and which have been consecrated by the use of ages, are preserved with a view to the relief of the members of the Brahmo Samāj. Marriages between natives of India not professing Christianity must be solemnized in the presence of a registrar, and of at least three credible witnesses, in whose hearing each of the parties makes the following declaration:—‘I, A. B., am a native of British India, I do not profess the Christian religion, and I object to be married in accordance with the rites of the Hindu, Muhammadan, Buddhist, Parsee, or Jewish religion.’ The bride and bridegroom are then to repeat words to the following effect:—‘I, A. B., declare, in the presence of the Almighty God, that I take thee, C.D., to be my lawful wedded wife (or husband).’

The husband must have completed the age of 18, and the wife must not be under 14. If she be under 14, the consent of her father or guardian is necessary.

The Hindu law does not recognise the second marriage of widows, though seven forms of cohabitation are observed with certain ceremonial rites. The mere act of being betrothed disqualifies from a second marriage. The affianced becomes a widow, though a komari or maid. Latterly, however, re-marriage of females left widows before attaining a really marriageable age, is being less objected to amongst respectable Hindus. Nothing can be crueller or more unwise than to condemn girls to a life of celibacy. The seven forms of cohabitation are,—when the first marriage has not been consummated; when a girl has been unchaste, and is married to another than the gallant; when a widow is allotted to a kinsman to raise issue for her deceased husband. In these three the woman is Pūnār-bhū, she who is wedded again. In the other four she is termed Swaireni, independent, uncontrolled.

Curao is the Urdu or Hindi term given among the Jat, Gujar, Ahir, and other races and tribes in North-Western Hindustan, to concubinage generally, but more especially to marriages of widows with the brother of a deceased husband. The practice is known to the eastward by the name of Urhuri, in the Dekhan as But’hee, and in other provinces by the name of Dhurecha. It is

followed among these classes, but is not very openly confessed even among them, as some degree of discredit is supposed to attach to it. It is only younger brothers who form these connections, elder brothers being prohibited from marrying their younger brothers’ widows, but among the Jat of Dehli even this is not prohibited. The practice has been common among several nations of the east. The Jews followed this custom, and in Egypt it was permitted for a childless widow to cohabit with a brother of the deceased husband. When the laws in Manu were collected, Curao appears to have been a recognised institution; but, as is not unusual with the Institutes, there is much contradiction between the enactments relating to it. From a consideration of all the passages on the subject, it appears that failure of issue was the point on which the legality turned. He who was begotten according to law on the wife of a man deceased, or impotent, or disordered, after the due authority given to her, is called the lawful son of the wife (chap. ix. ver. 176). When the two younger sons of king Santanu Vichitru Virya died childless, the Mahabharata mentions that Vichitru Virya’s widow first asked Bhishma, saying, ‘Take the raja’s widows, I pray you, and raise up sons that shall be to him as his own sons;’ and being refused, in consequence of his vow, How can I do this thing? have I not vowed a vow that I would never become the father of children by any woman? she sent for her own kinsman, Vyasa, to whom was born the blind Dhritarashtra, Pandu, and Vidura. This practice is identical with that of the Jews, as described in Ruth. There is perhaps no circumstance which so strongly shows the northern descent of the deified heroes as this marriage. Amongst the Jat, Gujur, and Ahir, children born in Curao are considered legitimate, and are entitled to inheritances accordingly. Children begotten by the woman previous to Curao, except in the case of fraternal Curao, are known by the name of Kudhelura, and do not inherit the property of the father-in-law.

In Berar, most Hindu women are allowed to make a second marriage, but a widow is married there by the ‘pat’ form, an inferior ceremony. The groom is not married to the woman, but to the swallow-wort plant, or to a ring, or a pitcher. The twigs of five plants are used,—the mango, the shami, jambul, apata, and swallow-wort. The trees are worshipped, a twig is cut from each; in the bride’s house they are placed in an earthen pot, around the mouth of which is bound a strip of yellow cloth torn from a woman’s bodice. They are subsequently worshipped at the Deokundi ceremony.

Plant Marriage.—In Chutia Nagpur amongst agriculturists, and in Singbhum amongst all classes of Kol, girls have a fixed price, sometimes up to 40 head of cattle; and girls often long remain unmarried, even to be old maids. When such are married, the bride clasps a mahwa tree, the groom a mango tree, and at the close of the ceremonies the bridesmaids pour a jar of water over the heads of each of the couple, who then retire to change their wet clothes. The next morning the bridesmaids burst into the nuptial chamber and bring forth the bride and groom.

The marrying with plants is not restricted to human beings. Banotsarg is the Hindu ceremony

of marrying a newly-planted orchard to its neighbouring well, without which it would be held improper to partake of the fruit. Brikhotsarg is the marriage ceremony performed by Hindus when liberating a bull. Hindus, in sickness, at marriages and other ceremonial occasions, loose a bull, which thenceforward rambles at will without an owner. These haunt the market-places and landing-places, and in large towns such as Benares, the Rauh, Saurh, and Sirhi or widow's bulls are numerous. The bulls are generally in good condition, are often in the way, but rarely mischievous, though very cunning.

The Matsya Purana and other books denounce marriage to a third wife under the penalty of early death, but incurrance of the penalty is evaded by the man himself being married to a plant. On a day when the sun is in the lunar asterism called Hasta, the resolve to marry is expressed, the manes of the deceased ancestors worshipped, and then the priest has to worship the Rui plant, a kind of swallow-wort which is considered to represent the sun in union with his wife Chhaya (shadow), raw sugar and rice offered, and the sun is thus invoked: 'O thou who dwellest in the three worlds, do thou, along with thy wife Chhaya, obviate the dangers that attend a third marriage, and confer on me felicity.' In the further ceremony, the man, placing his hand on the bush, says, 'Mercifully preserve me now that thou art come to be my wife;' and after other ceremonies, a veil is drawn between the parties, a benediction given, and the veil removed.

Seasonal.—With the Kadava Kunbi of Gujerat, an interval of twelve years elapses between one marriage season and another. After the lapse of nine years from one marriage season, the Kadava patels of Ahmadabad and Unjha, and the priests or Pujari of the goddess Umia Devi, the tutelary goddess of the Kadava Kunbi, whose temple is at Unjha in the Kadi division of Baroda, consult the goddess as to the marriage season. Two bits of paper, one containing the word yes, and another the word no, are thrown before the goddess, and a virgin is asked to take up one of them. If the bit selected by the virgin contains the word yes, it is construed into a permission on the part of the goddess for celebration of marriages that season. If, on the other hand, the bit containing the word no is taken up by the virgin, it is construed as a prohibition, in which case the bits of paper are again thrown before the goddess after a lapse of two years. If at that time also the bit taken up contains no, the experiment is tried again and again until the bit with yes is obtained.

The Kadava Kunbi are also very particular as to their intermarriages. But when a suitable match for a girl cannot be found, she is married to a bunch of flowers, which are afterwards thrown into a well. She is then a widow, and can be married with the natra rites. Or she is married to a married man, on the agreement that he divorce her on completion of the ceremony, and she can then, as a divorced woman, be remarried by the natra ceremony.

With non-Aryan aborigines, both parties are over 15 or 16 years old. The Kurumbar, for instance, marry after a girl is grown up, as also do the Betta Kurumba, the Teling Balja Vadu, the Devanga, Jadar, and Kaikalar weavers, also

the Palli race of the Tamil-speaking people, also the Hala-Paik and the Bilwara of Canara; also the Kansa Wakkala, the Upara or builders, the Bedar, the Lala Gundara, and the Soligara. A literary race called Kayastha, or Kayat, or Kayasth, who claim origin from a deified mortal called Chatrgoputr, also many of the Pariah tribes, allow their girls to grow up and remain in their father's house without any feeling of impropriety being associated with the practice.

The Reddi of the south of India are divided into 24 clans, who marry in their own clans. They profess to be Vaishnava. As a law, the men marry their sister's daughter, but an aunt does not marry her nephew. Sometimes the bride is a mere child of five or six years old; sometimes the bridegroom's age is no more, while the wife to whom he is married is a full-grown young woman, who, by the time her husband has grown up, has a young family of four or five children. Property descends through the issue of a son and granddaughter, uncle and niece. If a man refuse to marry his own sister's daughter, his father's property descends not to him, but to the man who marries the rejected woman. When a young Reddi woman of sixteen or twenty years of age is married to a boy of five or six years, she lives with some other adult male, perhaps a maternal uncle or cousin, but is not allowed to form a connection with the father's relations; occasionally it may be the boy-husband's father himself, that is, the woman's father-in-law! Should there be children, they are fathered on the boy-husband. When the boy grows up, the wife is either old or past child-bearing, and he in his turn takes up with some other boy's wife in a manner precisely similar to his own case, and begets children for the boy-husband.

The Komati or Hindu shopkeepers of Madras, before contracting marriage, send an offering of betel to the Chakili or shoemakers, and in Vizagapatam, Brahmans go through the ceremony of asking the Mala's consent to their marriage.

With the Maravar of Ramnad and Sivaganga disparity of ages is not considered, nor is the presence or assent of the bridegroom necessary,—a blade of wood in his absence serving as proxy. Some of their subdivisions do not marry into the father's family; but Hindus in general intermarry with the mother's relations.

The monkey-faced Kallar in the south of India are a brave and martial people, with much physical power and endurance. Their habits and customs are entirely aboriginal. Nominally of the Saiva sect, they are mostly devil-worshippers. They have a first and second marriage, like the Maravar of Ramnad. The titular surname of all Kallar is Ambalakaren, and they numbered 155,537 in 1881. Divorce and re-marriage of widows are allowed. Marriage of near relatives is usual. The Western Kallar of Madura are polyandrists. It constantly happens that a woman is the wife of either ten, eight, six, or two husbands, who are held to be fathers jointly and severally of any children that may be born of her body. And when the children grow up they style themselves the children not of ten, eight, or six fathers, as the case may be, but of eight and two, or six and two, or four and two fathers.

The Palli race of the Cuddapah districts pledge

their wives as security for loans of money, and if not repaid, the woman is re-married to another man. A case of this bigamy was tried in 1876 at the Session of Cuddapah, and all the parties were fined. The husband had borrowed some money from his mother-in-law, and left his wife with her till he could repay. Having failed to pay within the prescribed period, the wife was re-married to another man. The twice-married wife, her mother, and a third party who was present at the second marriage, were held to be equally punishable as principals, all having been present at the re-marriage.

The *Karakatan Vellalar* of the Madura Hills occupied their present locality before the Vellalar of the plains adopted the customs of the Aryan immigrants. And now, amongst them, when an estate is likely to descend to a female in default of male issue, she is forbidden to marry an adult, but goes through the ceremony of marriage with some male child, or, in some cases, with a portion of her father's dwelling-house, on the understanding that she may receive any man of the caste. Her children inherit the property, which is thus retained in the woman's family, the child-husband being the supposititious father.

The *Khoul* are faithful and brave, boundlessly hospitable, and a guest's safety and care are paramount duties. Agriculture and war are deemed the sole honourable avocations. A boy is married in his tenth year to a girl four or five years older than himself. In the middle of the marriage feast, at night, while the dancing goes on, the girl's uncle lifts her on his shoulder, while one of the boy's uncles does the same with the bridegroom. Suddenly the uncles exchange burdens, and the boy's uncle makes off with the bride. In a moment the festivities cease, the kinsmen range themselves into two hostile tribes, the girl's friends trying to recapture the bride, the boy's to cover her flight. The two parties carry the fight to great lengths, and the conflict exhibits an ancient custom of marrying by capture.

The *Yerkal*, *Korawa*, or *Kunchi Kori* are wanderers, of whose original country they themselves retain no knowledge. They are darker than the usual tinge of Hindus around them. In their own communities they style themselves *Yerkal*, and they give the same appellation to the language in which they hold communication with each other. With the exception of the cow, almost all animals are used by them as food. They worship a goddess called *Poler Amma*. Polygamy is common; and if a man owe money to his neighbour, he pledges his wife or daughter to his creditor, who may either live with them or transfer them to another person. On the release of the debtor, he reclaims his wife and any children that may have been born in the interval. In N. Arcot, Chingleput, and Tanjore, the *Korawa* mortgage their unmarried daughters, who become the absolute property of the mortgagee until the debt is discharged. In Madras, the *Korawa*, when in want of money, sell their wives outright for about 50 rupees. In Nellore, they all purchase their wives at from 30 to 70 rupees, making payment in asses or cattle. Their various clans do not intermarry. They bury their dead. In Travancore there are 56,274 *Korawa*; and there is a race of this name in Cutch of similar habits.

The *Toda* or *Todavar* (properly *Tuda* or *Tuda-*

vara) live in hamlets or 'mund' on the Neilgherry plateau. They never could have exceeded a few thousand, but they have diminished through opium-eating and polyandria, and, at a former period, the prevalence among them of female infanticide. It is said that no girl has been destroyed since 1819, but their present numbers do not support this. Before marriage, young people associate. After marriage, the *Toda* wife, or if there be more than one, all the wives, in a family of brothers are common to all the brothers.

According to Colonel Dalton (Tran. Ethn. Soc. vi. p. 25), the *Khariah* of Central India have no word for marriage in their own language, and the pairing appears to be little more than a sort of public recognition of the fact. The *Badaga* can scarcely be said to have any marriage ceremony. The *Kurumbar* tribe of the Neilgherry Hills have no marriage ceremonies; but occasionally, when two have been living together for some time, they will enter into an agreement, in the presence of friends, to remain united for life; and in a family where a succession of such unions has taken place, they will, once in two or three generations, perform a ceremony, and hold a festival in celebration of them. This is done by pouring pots of water over one another, the pairs seating themselves together for this purpose; the ablution commencing with the seniors. They then put on new clothes, and end the day in feasting and merriment.

The *Dhor*, leather-workers of the Dekhan, marry in their own tribe, making the marriage procession on a bullock; they are not entitled to proceed on a horse. The *Chamar* in Aurangabad worship *Mariamama* and *Sila*. They marry when under age, proceeding on foot to the goddess *Sitla*, whose shrine they circumambulate five times. The expense is about 100 rupees. *Kol* girls, till they are married, occupy at night the same house as their fathers and mothers. Boys and young men sleep in the *Morang* or town hall, and when a man marries, he and his bride leave the paternal roof, and form a separate home. The *Khariah* bride and bridegroom, as part of the ceremony, are carried through the dances seated on the hips of two of their companions.

Santal are shy and superstitious. To obviate disputes between them and the lowlanders, the Government, in 1832, erected a boundary line of stone pillars; but they fell into debt, and in 1855 a body of 30,000 men, armed with their bows and arrows, started to walk to Calcutta to lay their grievances before the Governor-General. But they began to plunder, and, when checked, they went into open rebellion, and in putting it down many were slain. A simple form of government was then introduced among them; nevertheless, again, in 1881, a few of them took up arms to resist the census-taking. They dwell in villages of their own, apart from other inhabitants, and each hamlet is governed by a headman, assisted by a deputy and a watchman. The *Santal* bachelors are under a separate head. The young people select their own partners, and at the marriage ceremony the girl's relatives pound burning charcoal with the household pestle, and extinguish it with water, in token of the breaking up of her former family ties. The dead are burned, and they float three portions of the skull down the *Damuda* river, the sacred stream of their race.

In *Sumatra* there were formerly three perfectly distinct kinds of marriage,—the *Jugur*, in which the man purchased the woman; the *Ambelanak*, in which the woman purchased the man; and the *Temando*, in which they joined on terms of equality. In marriage by *Ambelanak*, says Marsden, p. 262, 'the father of a virgin makes choice of some young man for her husband, generally from an inferior family, which renounces all further right to, or interest in him, and he is taken into the house of his father-in-law, who kills a buffalo on the occasion, and receives twenty dollars from his son's relations. After this, the *buruk baik'nia* (the good and bad of him) is invested in the wife's family. If he murder or rob, they pay the *bangun*, or the fine. If he be murdered, they receive the *bangun*. They are liable for any debts he may contract in marriage, those prior to it remaining with his parents. He lives in the family in a state between that of a son and a debtor. He partakes as a son of what the house affords, but has no property in himself. His rice plantation, the produce of his pepper garden, with everything that he can gain or earn, belongs to the family. He is liable to be divorced at their pleasure, and though he has children, must leave all and return naked as he came. The *Temando* is a regular treaty between the parties on the footing of equality. The *adat* paid to the girl's friends has usually been twelve dollars.

In *Bali Island* girls are stolen away by their lovers, who sometimes surprise them alone, or overpower them by the way, and carry them off with dishevelled hair and tattered garments to the woods. When brought back from thence, reconciliation is effected with enraged friends by a certain compensation price being paid to her relatives.

In the *Korea*, when a man marries, he mounts on horseback, attended by his friends, and, having ridden about the town, stops at the bride's door, where he is received by her relations, who then carry her to his house, and the ceremony is complete.

Amongst the *Australians*, the bride is carried off by force.

Japanese, of all classes, look upon their wives as upon a faithful servant. A Japanese is never known to beat his wife. It is a custom amongst some Japanese to take a woman a few weeks on trial before deciding upon whether to marry her or not. The Japanese marriage ceremony is very simple. The bride and bridegroom drink wine with each other three times, exchanging cups with each other every time, in the presence of a few select friends, after which the young lady gets her teeth blackened, and she is married for better and for worse. Amongst the Muhammadan women of India, also, the custom is followed of blackening the bride's teeth with missee on marriage; women never use it before their wedding-day, and it is by the black mark in the crevices between the teeth, occasioned by the application of the missee, that a Muhammadan woman can be observed to be married or not. With the same object, Malay women have their front teeth filed down.

Amongst the *Sikh-Pooh Kafir*, the marriage ceremonies consist merely of procuring two twigs or rods of the respective height of the bride and bridegroom, and tying them together. These are presented to the couple, who preserve them so

long as they live together. If desirous to separate, the twigs are broken, and the marriage is dissolved.

With the *Buddhist races* of Tibet and Burma, marriage is readily contracted, and the tie as easily broken. In Burma, marriage and concubinage are regarded as civil contracts, and all breaches are punished by fines; seduction is also punishable by a fine. Girl marriages, as in India, are unknown in Burma, and a Burmese girl is courted and won. The period of the day between eight in the evening and midnight is called courting-time, during which the girls receive five or six bachelor admirers, who act as a check to each other. This courting-time is called *loo-hyo-lai-thee-kala* in Burmese. A lamp placed in their casement intimates that they are at home. An old bachelor (*loo-hyo-hoing*) or old maid (*apyo-hoing*) is unknown out of the ascetics of the monasteries. Burmese women wear as a lower garment a gay-coloured cloth, which just wraps the lower part of the body, and opens at every step, disclosing the left thigh.

In *China* marriage is universal, and such a being as an old maid or an old bachelor is unknown. With the Hindus, Muhammadans, and Chinese, parents choose wives for their sons, as was customary with the early Hebrews. (Genesis xxi. 21, xxxviii. 6; and Deuteronomy xxii. 16.) A Chinaman cannot take as a wife a woman who bears the same family or clan name as himself. If he do so, the marriage is null; neither can he marry his cousin on his mother's side, nor his step-daughter, nor his mother's sister. No lady can marry until she is fourteen years of age. Play-actors, policemen, boatmen, and slaves must marry into their own respective classes. The Chinese attach great importance to marriage. It is not considered respectable for a widow to marry again. Where a betrothed girl loses her affianced husband, public opinion regards it as meritorious for her to abstain from marriage. Testimonials are often voted by the people to commemorate such instances of fidelity; and where a widowed betrothed girl chooses to die voluntarily, her memory is held in the highest honour. Nevertheless, women, even as first wives, do not take a high place in families, although as mothers their condition is vastly improved. They are in theory monogamists, but polygamy is common amongst the well-to-do, though rather in the form of concubinage. Nunneries of Buddhists are formed in China, but the inmates are not respected; they are admitted after 16 years of age, and their heads are shaven.

In the marriage ceremony, the Chinese bride and bridegroom, after the worship of the tablets, rise to their feet, and remain standing in silence. One of the female attendants takes two goblets from the table, and, having partially filled them with a mixture of wine and honey, she pours part of the contents from one to the other several times; she then holds one to the mouth of the groom, the other to the mouth of the bride, who sip a little of the wedding wine, and, continuing to face each other, she then changes the goblets, and the bride sips out of the one the groom had used, the groom out of that of the bride, and this completes the marriage.

With the Chinese, the closing act of the ceremony is for a female attendant to present to

the bridegroom a small linen sheet, which he spreads on the nuptial couch, and on the following morning it is presented to his parents. This rite is adhered to in a modified form by the Jews throughout the world. It lingers among some races professing Christianity. About the year 1882, a trial took place before the Court of Assize at Naples, terminating with the condemnation of Vincenzo and Carolina Garguillo, son and mother, the former to hard labour for life, the latter to seclusion for three years. The daughter of Carolina, one of the beauties of Sorrento, was married to a sailor called Guiseppe Esposito. The usage of the lower classes of the country, which efforts have been made in vain to suppress, is for the bridegroom to visit his mother-in-law on the morning following the marriage, and Esposito was reminded of it. The visit was not, however, paid, nor was it after waiting a fortnight. The mother-in-law then becoming furious, complained to her son, urging him to avenge the honour of his sister and of the family. Vincenzo Garguillo thereupon went to his sister's house and waited for the husband, who on his arrival welcomed him, and begged him to stay and dine. The answer was that Vincenzo, drawing a knife and throwing himself on his brother-in-law, stabbed him and laid him dead at his feet. In the Samoan group, the Jewish ceremony customary on such occasions is adhered to.

There are difficulties in the way of the Manchu emperor obtaining a bride. He acknowledges no other king or rank of his own kind, hence there is no prince's daughter who can be asked for his wife. There are princes in China, but they are of the imperial family, and cannot intermarry. He must take his wife from the people, and she must belong to one of the eight banners. In a recent case there were two empresses, the one was called the Eastern Empress and the other the Western. When the selection of a bride had to be made, these two ladies issued orders to all the chiefs who had daughters of the desired age to send them to the palace. But families do not like their daughters to become the wife of an emperor, not even to be his empress. A girl is in a sense lost to the family, for she is kept so secluded in the palace that the relatives seldom or never see her, and it brings the parents and family into a position and prominence which is dangerous in a country like China. So parents allege that they are cripple, or deaf, or blind, and in some cases lameness is imitated, and deformities are artificially produced. To such an extent had this been carried, that orders, it is said, were issued that blind, lame, and deaf were all to be sent to the palace. Somewhere about 600 or 700 girls appeared on the day fixed, and about 50 or 60 young ladies were selected as a result of the first inspection. Their names were taken, and the character and position of their families were inquired into; their horoscopes also would be carefully calculated. After this had been done, another inspection was gone through, and 30 were separated from the batch; these were then kept in the palace, so that their merits and demerits could be more accurately ascertained. After a short stay, the number was reduced to 20, then to 10, and at last became a tie of two; and thus an empress was selected. At the same time four

other wives were chosen, and these were to form the commencement of the imperial harem.

Silver and golden wedding days are almost as much observed by the Chinese as by the Germans. On these festivals children present parents with magnificently embroidered banners, which are hung up in the ancestral hall, a large room so appropriated in the house of every wealthy man. In this apartment, besides these tokens of filial affection, are kept boards, on which are painted, in gold on a scarlet ground, the names and titles of the families with which the family has intermarried. When a woman marries, all the boards from her father's ancestral hall are carried in procession before her.

Some *peculiar customs* in various races may be noticed. There is occasionally practised amongst Hindus of the Komati caste, the marriage of the living and the dead, the principals being a living woman and a dead man. In one case the living woman and the dead man had lived together for many long years as man and wife, when, after suffering from a febrile attack for only four short days, the man died. Agreeably to the peculiar custom of their caste, it was imperative, ere the corpse could be removed for interment, that the sacred rites of matrimony should be performed. The sad intelligence was soon communicated to the neighbouring residents, and to a host of friends and acquaintances, and a fluctuating stream of passers-by. A guru or priest being summoned, and the necessary preparations for the celebration of the nuptials being hurriedly completed, the ceremony commenced. The inanimate form was placed against the outer wall of the verandah of the house in a sitting posture, attired like a bridegroom, and the face and hands besmeared with turmeric. The woman also was clothed like a bride, and adorned with the usual tinsel ornament over the face, which, as well as the arms and the drapery, was daubed over with yellow. She sat opposite the dead, now addressing it with light and unmeaning words,—as is customarily done upon such occasions,—and then chewing bits of dry coconut, and squirting it on the face. And thus the ceremony continued for three or four hours. At length, as the sun was nearing the horizon, the nuptial ceremony was brought to a close, and the preparation for the interment commenced. The head was divested of its bridal attire, then bathed, and finally laid upon a bier, and covered with a cloth of silk. The face was next rubbed over with some red powder, and in the mouth were placed some betel leaves. The widowed bride then looked her last at the shrouded form of him whom never more she would behold, when, amid agonizing shrieks and deafening tom-tomming, the bier was lifted up, and the funeral cortege proceeded in the direction of Sion; one man preceded the corpse, throwing at intervals a handful of pie to the right and left, which were eagerly picked up.

A Hindu mother-in-law is not permitted to appear before her son-in-law; to do so would be deemed scandalous.

In China, Borneo, and the Fiji Islands, a father-in-law after his son's marriage never again visits his daughter-in-law, and if they chance to meet, he hides himself. In Australia, a man must not pronounce the name of his father-in-law, mother-in-law, or son-in-law. The Muhammadans of

Western Asia indicate their wives as the mothers of their sons. No Hindu or Malay woman can be induced to pronounce her husband's name.

The Aleutian islander, says Mr. Farrer, quoting Dall, knows nothing of what civilised nations call modesty, yet he blushes when he is obliged to speak to his wife, or to ask her for anything in the presence of others. Custom compels them to assume the attitude of perfect strangers. The Hottentot woman may never enter her husband's room in the hut, and the husband, as among the Spartans, must never be seen in the neighbourhood of the wife. Among the Yoruba, an African tribe, a woman is forbidden to speak to her husband, and may not even see him if it can possibly be avoided. Apparently a similar custom existed among the early Sanskrit-speaking peoples, for the wife, in the famous story of Urvashi and Pururavas, says to her lord, 'Never let me see thee without thy royal garments, for such is the manner of women.' And when this rule is accidentally broken, Urvashi must softly and suddenly vanish away.

A Circassian bridegroom must not see his wife nor live with her without the greatest mystery; and Fiji islanders display the utmost distress of mind when adventurous missionaries suggest that there is no real harm in a man's living under the same roof with his wife. The young Kaneka bolts with a wild scream into the bush if you even mention the name of his sister; while in Fiji not only brothers and sisters, but first cousins of opposite sexes, may neither eat together nor speak to each other.

Among *Muhammadans* there is only one legal ceremony, the Nikkah, by the kazi or his deputy, but there are several deviations from it. In Persia and India their Nikkah ceremony is with rejoicings or Shadi, if the bride be a spinster and of equal rank with the bridegroom; their Mutai marriage is for a limited time in consideration of a present, and the Nikkah-i-Muwakkat is a temporary marriage. According to the Sunni ruling, the offspring of the Mutai and the Nikkah-i-Muwakkat are illegitimate. The Sunni say a usufructuary marriage, i.e. where a man says to a woman, 'I will take the use of you for such a time for so much,' is void; so also is a temporary marriage (e.g. a marriage for ten days), whether for a short or for a long time; but it is one of the points on which the Shiah differ from them. A verse of the Koran has been interpreted by the Shiahs as warranting such a temporary marriage; the Sunnis have come to a different and certainly a more moral interpretation. Kings and great men have occasionally availed themselves of the diverse views of the different schools to obtain legal sanction for irregular practices. A king of Beder in the 15th century is described as complaining to his Sunni lawyers of being limited to four wives, and desired to know how he might marry more. They pointed out that, although he could have only four at a time, he might divorce one wife and marry another as often as he pleased. This was not what he wanted; so he addressed himself to a learned Shiah, who was present at his court. From him he obtained the opinion that a Mutai or temporary marriage was legal, and had been practised in the time of the prophet. Marriage carries with it rights of inheritance, and the dower settled upon the wife

may, and often does, interfere with the rights of the ordinary heirs. Dower is held to be the price promised or paid by the husband for possession of the wife's person. If unpaid, it is a debt on the husband's estate. It takes precedence of all claims by inheritance, and descends by inheritance to the wife's heirs. The amount of dower is entirely arbitrary, and varies according to the position in life, and the youth, beauty, and accomplishments of the bride. It is settled by the relatives of the contracting parties; but if a marriage has been agreed upon and the amount of dower is disputed, the magistrate has authority to determine the just amount. Divorce under the Muhammadan law may be effected at the mere will of the husband; but a man cannot repudiate his wife without paying her dower; so it frequently happens that a very ardent lover, or one willing to divest himself of the power of divorce, will agree to an amount of dower which it is quite impossible for him to discharge. From this there is no escape but payment, or remission on the part of the wife. A free man may not have more than four wives at the same time; a slave may not have more than two. There is a long and well-defined table of Prohibited Degrees, and this includes not only relations by blood, but, generally speaking, those also who stand in the same relation by fosterage. Free persons cannot marry their own slaves, because parents have by law an equal right in their offspring, and this right is incompatible with the position of owner and slave.

The marriage of Hindu women by Muhammadan emperors commenced with the father of Firoz Shah, whose mother Naila was the daughter of raja Malla Bhatti. Howell states that when the Hindu rajas submitted to Timur, it was stipulated that the emperor should marry a daughter of Jet Singh's house, and that the head of the house should be governor of Bengal.

About A.D. 1306, Kaula Devi, wife of the raja of Gujerat, had been captured in Baglana during her husband's flight, and was carried to Ala-ud-Din's harem. She had great influence over him, and induced him to make efforts to capture her daughter Dewala Devi. This was accomplished, and her beauty made such an impression on the king's eldest son, Khizr Khan, that he soon after married her. Their loves are the subject of a celebrated Persian poem by Amir Khusru.

Jodh Bai, daughter of Bahāra Mal, raja of Amber (now Jeypore), was the emperor Akbar's wife, and she was the mother of Salim, who became the emperor Jahangir. The marriage of Salim with the daughter of raja Bhagwan Doss, son of Bahāra Mal, was performed according to Hindu form at the raja's house, and in the presence of Akbar. Other Muhammadan emperors had Hindu wives, but no Hindu was permitted to marry a Muhammadan girl. Jahangir said, 'Marrying a Hindwani is not so bad, but to give one's daughter to a Hindu! Lord protect us against the machinations of the evil one!' The practice of the Muhammadan emperors marrying Hindu women was a matter of policy, calculated to preserve a good understanding.

In Egypt, girls are prepared for marriage with a very great deal of ceremony. There are tirewomen who make the beautifying of brides their special profession. On the wedding morning the bride is dressed in her bridal robes; her hair is

plaited with the Grecian plait, small pieces of gold-leaf are stuck on her forehead and on her breast; care is taken not to conceal any of the stars or spots tattooed on her face and chest in infancy; a line of blue dots encircling the lips is sometimes seen, and a spot on the chin is very common. A little rouge is added to heighten the colour of the cheeks where necessary.

In British India, the descendants of all the Musalman races—Arab, Iranian, Turanian, Mongol, and Hindu converts—intermarry. Rarely a Christian man and a Muhammadan woman.

The Koran of the Muhammadans enjoins the strictest seclusion of women. They are prohibited from appearing unveiled before any but very near relations, children, or eunuchs. But elderly women of the poorer classes, married or widows, appear abroad, do all the marketing and other out-of-door domestic work, and without veils of any kind. This practice of seclusion is followed also by the Rajputs of rank and the Namburi Brahmins. But with the mass of the Hindu people, the women attend to all ordinary in-door and out-of-door duties, drawing water at the well, obtaining the daily bazar supplies, and the women of the agricultural and gardening and labouring races of the Aryans and non-Aryans share their husband's toils.

Erroneous physiological notions of the races in Central Asia and China lead some husbands to marry more than one wife, or to have haram or slave women in their homes, and it is this which keeps up slavery there. The Muhammadan haram custom is given in the rule for the Jews, Judges v. 28-30; Deuteronomy xxi. 10-13: 'When thou goest forth to war against thine enemies, and the Lord thy God hath delivered them into thine hands, and thou hast taken them captive, and seest among the captives a beautiful woman, and hast a desire unto her, that thou wouldest have her to thy wife; then thou shalt bring her home to thine house; and she shall shave her head, and pare her nails; and she shall put the raiment of her captivity from off her, and shall remain in thine house, and bewail her father and her mother a full month; and after that thou shalt go in unto her, and be her husband, and she shall be thy wife.'

In British India, the rule which Europeans affects the European community is the resolution of the Governor-General in Council, dated the 8th October 1852, which prescribes that certificates of marriage should be transmitted to England in every case when either party to the marriage is what is commonly called a British subject, or the legitimate offspring of such a person; and in other cases, whenever either party to the marriage desires it to be so transmitted. Subjects of foreign European states were provided for in 1854, when returns of births, deaths, and marriages of European Christians, of all denominations, throughout British India, were prescribed by the Governor-General in Council. Every marriage between British people, or in which one of the contracting parties is of legitimate extraction from English parents, has become capable of proof by simply referring to the Registrar-General in London.

In the old Roman forms of marriage, *confarreatio* was the most sacred, and the bride and bridegroom were joined together by the Pontifex Maximus in a set form of words, in the presence

of at least ten witnesses, the contracting parties having to partake of a cake made of salt, water, and flour, called *far*. Of that *panis farreus*, the wedding cake of the British is the relic, and their bridesmaids and groomsmen have their origin in the ten witnesses. Amongst the Romans, special honour was given to the children of such marriages, and from amongst them were chosen the *flamines* of Jupiter and the vestal virgins.

The bride's cake which so invariably accompanies an English wedding, and which should always be cut by the bride, may be traced back to the old Roman form of marriage by *confarreatio* or eating together. The Fiji islanders have a very similar custom. The act of eating together is, amongst the Burmese, the ceremony of union. Among the Tiperah race of the hill tribes of Chittagong, the bride prepares some drink, sits on her lover's knee, drinks half and gives him the other half; they afterwards crook together their fingers. But marriage amongst the Romans was of three kinds,—the *confarreatio*, which was accompanied with the most awful religious rites, was practically indissoluble, and was jealously restricted to patricians; the *Coemptio*, which was purely civil, and which derived its name from a symbolical sale, and which, like the *confarreatio*, gave the husband complete authority over the person and property of his wife; and the *Usus*, which was effected by a simple declaration of a determination to cohabit. The *Usus* became general in the Roman empire, and in it the married woman remained in her father's house and under his guardianship. Her dowry passed into the husband's hands, but, with that exception, she held her property in her own right; she inherited her share of her father's wealth, and she retained it altogether independent of her husband;—and thus a very considerable portion of Roman wealth passed into the uncontrolled possession of women. During the ascetic stage of morals in Europe, many Romans and Christians regarded a second marriage as improper.—*American Expedition*; *Bouring's Ethnol. of India*; *Burton's Scinde, Mecca, and City of the Saints*; *Major Bushby in Berar Gazetteer*; *Balfour on Tribes, in Jameson's Ed. Journ.*; *Cameron's Eastern Possessions*; *Mr. (Sir George) Campbell's Ethnol. of India*; *Dalton's Ethnol. of Bengal*; *Davy's Ceylon*; *Doolittle's China*; *Elliot's Glossary and India*; *Fraser's Himalaya Mountains*; *Frere's Antipodes*; *Forbes' Rasamala*; *Graham's Khandesh Bhil Tribes*; *Gray's China*; *Hodgson's Aborigines of India*; *Histoire Abregee des Cultes*; *Journs. Beng. As. Soc., Ethnol. Soc., Indian Archipelago, Royal As. Soc.*; *Imperial Gazetteer*; *Kearns' Tribes of S. India*; *Layard's Nineveh*; *Lecky's European Morals*; *Lubbock, Civilisation*; *Lewin's Chittagong Hill Tracts*; *Mahabharata Selections*; *Malet's Travancore*; *M'Lennan's Primitive Marriage*; *Marsden's Sumatra*; *Metz, Neilgherry Tribes*; *Menu, Institutes*; *Perry's Bird's-eye View of India*; *Newbold's Malacca*; *Raffles, Java*; *Ramayana*; *Recherches Phil. sur les Chinois*; *Calcutta, Westminster Reviews*; *Robert's Oriental Illustrations*; *Rogers' Domestic Life in Palestine*; *Shortt's Hill Ranges, and in Ethnol. Soc. Journ.*; *Mrs. Spiers, Ancient India*; *Tod's Rajasthan*; *Vishnu Purana*; *Ward's Hindoos*; *Watson and Kaye's People of India*; *Weber's Literature*; *Williams' Nala and Damayanti*; *H.*

H. Wilson's Hindu Theatre, Glossary, and Sects; Dr. Wilson's India 3000 Years Ago.

MARRI AI, literally the death-mother, the goddess worshipped by the Beldar race of Berar.

MARROW, Vegetable. *Cucurbita ovifera*, one of the most nourishing and wholesome of the gourds.

MARRUBIUM VULGARE. *Linn.*

M. hamatum, H.B. | M. Germanicum, Schr.

Horehound is a plant of Europe and Mid Asia, near Kashmir, on the Chenab, in the Salt Range and Trans-Indus, at elevations varying from 2000 to 7000 feet.—*Dr. J. L. Stewart, M.D.*

MARSDEN, SIR WILLIAM, a medical officer of the E. I. Company, author of History of Sumatra, its Government, Laws, Customs, and Manners; Numismata Orientalia Illustrata, Lond. 1823-25; Bibliotheca Philologica et Orientalis. A Catalogue was printed of the Books and Manuscripts collected by him on the Chronology of the Hindoos, Lond. 1790.

MARSDENIA ROYLI. *Wight.*

Pathor of . . . CHENAB. | Tar of . RAVI and SUTLEJ. Veri of RAVI and SUTLEJ.

A climbing plant, growing up to 8000 feet in the Outer Himalaya hills and in the Salt Range. Its fibres are made into fishing-lines, and the powdered unripe fruit is given as a cooling medicine.—*Dr. J. L. Stewart.*

MARSDENIA TENACISSIMA. *W. and A.*

Asclepias tenacissima, | A. tomentosa, Herb. Rozb. | Gymnema tenac., Spr. Tongus, . . . HIND. | Chittoe, Jeti, . . . TAM.

The Rajmahal bowstring creeper grows in the Peninsula of India, in the Rajmahal Hills, Palemau, Nepal, and Chittagong. It has small greenish-yellow flowers; from wounds in it a milk-like juice issues, which hardens into an elastic substance, with properties like caoutchouc, and from the bark, beautifully fine silky fibres are obtained, of which the Rajmahal mountaineers make their bowstrings. These are said to last for five years, though in constant use and exposed to all sorts of weather. In preparing the fibres of this plant, the hill people do not put the stems in water, but let them stand in the sun for a day till drier; from the ends, when cut, there exudes a milky juice, which thickens into an elastic substance, like, indeed forming one kind of, caoutchouc, acting in the same way in removing black-lead marks. The fibres are beautiful, durable, and strong; some twine made with it bearing 248 and 343 lbs. in the dry and wetted states, when hemp twine bore only 158 and 190 lbs. in the same state. The stems are cut into lengths, and then slit down the middle; then dried, and afterwards steeped in water for about an hour or more, when the fine silky filaments are separated. A 1½-inch rope in Calcutta was found to break with 903 lbs., when Europe rope broke with 1293 lbs., and others with greater weights. It stood ninth in strength, but second in elasticity. Mr. Taylor states it might be easily cultivated.—*Journ. Agri-Hortic. Soc.*, 1844, p. 22; *Royle, Fib. Pl.*; *Rozb. ii.* p. 51; *Voigt*, p. 537.

MARSDENIA TINCTORIA. *R. Brown.*

Asclepias tinctoria, Rozb. | Cynanchum tinjeris, Herb. Purgularia tinctoria, Spr. | Ham.

This creeper grows in both the Peninsulas of India, in Assam, Sylhet, Pegu, Tenasserim, and

Sumatra; and Dr. Roxburgh recommended its extensive cultivation. The Burmese obtain from it quite a good indigo blue, though not equal to the dye from the Ruellia.

MARSHALL, THOMAS, a surgeon of the Bombay or Bengal Army, who was Statistical Reporter in the S. Mahratta country. His reports on the parganas of Padshapur, Belgaum, Kalaniddee, Chandgarh, Khanapur, Bagulcot, Badami, and Hoondgoond were printed in Bombay in 1822. He died between the 29th July and 6th September 1821.

MARSH DATE or Ground Rattan is the *Calamus rotang* or common cane plant. Its leaves are used at Cuddalore for making ropes and mats. Marsh date palm is the *Phoenix paludosa*.

MARSH MALLOW, *Althæa officinalis*. A syrup of this is a mucilaginous demulcent; syrups for the same purposes may be prepared of *Bombax Malabaricum* root, of dried *Abelmoschus esculentus* capsules, of *Asparagus sarmentosus*, of *Egile marmalos*.—*Beng. Phar.* p. 407.

MARSHMAN, JOSHUA, colleague of Carey and Ward, born in 1768 at Westbury Leigh, the son of a weaver and Baptist minister. He arrived in India in 1799. John Clark Marshman, his eldest son, was born August 1794, accompanied his father to Serampur in 1800, and from 1812, for nearly 20 years, living like his colleagues on £200 a year, conducted an enormous correspondence, and betook himself to secular work, though never abandoning his projects for the evangelization of Bengal. He started a paper mill, founded the first newspaper in Bengali, the *Sumachar Durpun*; established the first English weekly, the *Friend of India*, which in his hands speedily became a power; published series of law books, one of which, the *Guide to the Civil Law*, was for years the civil code of India; and started a Christian colony on a large tract of land purchased in the Sunderbans. All his undertakings except the last succeeded, and the profits and influence acquired through all were devoted in great measure to his favourite idea, that education must in India precede Christianity. While still a struggling business man, he expended £30,000 on building and maintaining a college for the higher education of natives, a college still worked with the greatest success. Knowing Bengali as only skilled native pandits know it, and law like a trained lawyer, he was asked by Government to become Official Translator. The salary was £1000 a year, and for ten years he paid away the whole salary every month in furthering the cause of education, and this in silence so complete that his own family probably only after his death learned the fact for the first time. He wrote the first, and for years the only, *History of Bengal*, and published a *History of India* after his return to England in 1852.

MARSIAH. ARAB. An elegy, a dirge, read during the Maharram on the deaths of Ali, Hasan, and Husain.

MARSILEA QUADRIFOLIA. *Linn.*

Soosni-shak, . . . BENG. | Ari kiray, . . . TAM.
Chuppati ke buji, . . . DUKH. | Ara kura, . . . TEL.
Godhi (the bulls), . . . HIND. | Mudugu tamara, . . .
Chittur dulla, . . . SANSK. | Murugu tamava, . . .

A plant of Europe, N. Africa, India, and Australia. Its bulbs are eaten either raw or

boiled. *M. Egyptiaca*, Willd., is found in Egypt and in the Peninsula of India, and *M. Coromandeliana*, N. L. Burm., in the southern part of the Peninsula of India.—Voigt; Powell; Ains.

MARSUPIALS, an order of mammals found only in Australia and America. They bring forth their young in an incomplete state. After their birth, the young become attached to the teats of their mother placed inside a pouch situated beneath the abdomen, and are there retained until sufficiently adult to be able to shift for themselves, as in the opossums and kangaroos.

MARTA, in Malabar, a Pariah aboriginal race who personate demons.

MARTABAN, a province and small town in British Burma. The town is at the junction of the Gwyne and Salwin rivers opposite Moulmein, in lat. 16° 32' N., and long. 97° 37' E. The rise of the tide is 21 feet, the district is occupied by the Mon or Talaing race. The town was taken by the British 30th October 1824, and again on the 2d April 1851. The district is bounded on the west by the Bay of Bengal, and is traversed from south-east to north-east and then north by a range of hills culminating in the Zeng-gyaik peak, 3500 feet above sea-level. Towards the end of the 16th century, Martaban was taken by the king of Siam, who appointed a governor over it and the surrounding country. In Martaban the amount of silver was found to vary in different portions, from about 70 ounces to the ton of the ore; but in a second assay to 300 ounces in the ton, or a little less than 1 per cent. Martaban jars are jars of glazed earthenware. Dulaurier quotes from Father Azar, a Maronite, that Martaban means a casket or vase for keeping medicines and confits, etc. But the word is used for the great vessels of glazed pottery, called Pegu or Martaban jars from the places where they were purchased, and which retained a wide renown up to the present century.—Yule, *Cathay*, ii. p. 476; *Imp. Gaz.*

MARTEN. The martens of the genus *Martes* chiefly belong to the northern parts of the world, but three species occur in the south and east of Asia. The Indian marten, *Martes flavigula*, is found up to 7000 and 8000 feet throughout the whole of the Himalaya, south and east to China and Malayana, and on the Neilgherry Hills and in Ceylon. *M. tufceus*, Hodgson, is found in the villages of Tibet and Ladakh at 11,000 feet, also in Afghanistan, and its skin is sold in the Peshawur bazars. Dr. Adams seems to recognise this as identical with the *M. abietum* or pine marten of Europe, and he says that the skins of the pine marten (*M. abietum*) are imported from Afghanistan and sold in the bazars of the city, where also those of the ermine are occasionally observed. *M. zibellina*, the sable marten, is obtained in Tibet.—Adams; Jerdon's *Mammalia*, pp. 81, 82.

MARTIN. Sir James Ranald Martin, a medical officer of the Bengal army, author of Brief Topographical and Historical Notice of Calcutta, London 1817; Memoir on the Advantages of the Re-occupation of Negrais Island, in Bl. As. Trans., 1834; Johnston and Martin on Tropical Climates.

MARTIN, MONTGOMERY, wrote on the History, Antiquities, Topography, and Statistics of Eastern India, London 1838, 3 vols.

MARTIN. This name is given to several genera of birds, the genus *Cotyle* or sand martins,

of which *C. riparia*, *C. suboccata*, *C. Sinensis*, and *C. concolor*, also *Chelidon urbica*, *C. Cashmiriensis*, and *C. Nepalensis*, occur in India. Dr. Adams thinks that the common house martin of the Neilgherries and Southern India is identical with *Chelidon urbica* of Europe. On the Lower Himalayas and Kashmir ranges, a bird appears in spring, very closely allied to the above. Gould named it the *Chelidon Cashmiriensis*. This martin migrates to the Panjab during winter.

MARTINE, MAJOR-GENERAL CLAUDE, was a private soldier from France, who rose to the rank of General in Oudh. He founded the Martinière. The sum he set apart for endowing the noble charity called La Martinière, was 3½ lakhs of Sicca rupees; but by the interest up to October 1832, this had increased to 9,62,825 Sicca rupees, or nearly £100,000 sterling. Sir Edward Ryan, Chief Justice of Calcutta, drew up a decree on the 22d October 1832, regulating its internal economy, and the building was completed on the 31st December 1835, and opened for the reception of the wards on the 1st March 1836. It provides for fifty Christian children, irrespective of sect, on the foundation, and educates boarders, day boarders or day scholars. His house and tomb are at Castalia, about three miles from Lucknow. He died A.D. 1800.

MARTYN, HENRY, a missionary clergyman of the Protestant sect, who laboured in India and then proceeded to Persia, where he died. His zeal was beyond the strength of a naturally delicate constitution, and he expired at Tokat on the 16th October 1812. He had been Senior Wrangler at Cambridge in 1801. From Shiraz to Isfahan, from Isfahan to Teheran, from Teheran to Tokat, he struggled onwards, hoping to reach his home.—Porter's *Travels*, ii. p. 703; Kaye's *Christianity*.

MARTYR, in Arabic shahid; this term is applied by Muhammadans to the professors of Islam who fall in battle in a religious war. Twenty descriptions of persons become so.

MARU, SANSK. from Mri, to kill. Maru is also a contracted form of Marusthala, a dry, sandy, sterile tract, a desert. Maru-des or Marusthala, a desert country, is applied to the sandy tracts between Rajputana and the Indus.—W.

MARULA MATANGI, or Tal Noppi, or Marulu Jada Chettu; *Xanthium orientale*, L. The prickly involucre is applied to the ear to cure headache.

MARUMAKKAI. In Travancore the law by which property descends to heirs of the body is called Makkatayam, or 'children's inheritance.' That law by which the nephews of Nairs are their heirs is called Marumakkatayam; the term Marumakkal being used for nephews, or sometimes for sons-in-law, from Maru, to dwell, fondle,—those who reside with one, and affectionately treated as one's own children.

MARUMAKKATAYAM, MALEAL. T of succession by sisters' sons, in the form observed in Malabar by the Nair race, the Brahman and Mappila families, and the servile tribes there.—W.

MARUT and Harut, according to two angels who visited Babylon. Wh in heaven expressed surprise at the sons of Adam, God let their themselves to be sent down to Harut were chosen, and they with integrity, until Zohra

descended in the shape of a woman, who enticed them to love her, and then flew to heaven. She was followed by Marut and Harut, but Ridwan, the guardian of paradise, refused them admission. As a punishment, they were confined at Babylon until the day of judgment.

MARUT, in the mythology of the Hindus, a personification of the wind. The Marut deities are the forty-nine winds personified. In the Vishnu Purana they are described as the children of Diti by Kaasyapa, or rather as the child divided by Indra into forty-nine portions, and afterwards addressed by him in the words 'ma rodih,' weed not, whence the name Marud. The Marut hold the first place amongst the inferior deities. Marut is one of the most prolific roots in Aryan speech. This root is mar or mal, to crush or pound, and hence either to destroy or to soften, and by softening sometimes to sweeten. The Maruts are therefore emphatically the crushing, grinding, or pounding storm-winds, who overturn everything in their path, and set forests on fire by the friction of boughs. The Greeks also had their grinders and pounders in the Moliones and the Aloadaï, as they had both Aleuron and Maleuron as words for ground corn; while another crusher, Ares, reappears in the Latin Mars and in the Teutonic Thor Mjolnir.—*Williams' Story of Nala*, p. 237; *Vishnu Purana*, p. 151.

MARUTHA, in Travancore, the spirit, shade, or ghost of a woman who has died of fever; they are buried inside the house, mantrams being said over them to hinder their attacking the survivors. The graves of virgins dying young are used as places for worship, some tree, such as pala (*Alstonia scholaria*), being planted over the grave, and a lamp kept burning. Pregnant women dying are supposed to become demons, and are therefore taken for burial to some distant and lonely jungle, and mantrams repeated over the grave to prevent their spirits from returning to injure people.—*Muteer*.

MARVES, a race in the Neilgherry Hills, known as the Badaga, corruptly Burgher.

MARWAR ranks among the states of Rajputana next in importance to Mewar and Jeypore. Tradition ascribes its foundation to Jodha, a descendant of the Rahtor Rajput kings of Kanouj, who is said to have founded its capital, the city of Jodhpur, about A.D. 1459.

Marwar is bounded on the N.W. and N. by Jeysulmir, Bikanir, and Shekawati; on the E. by Jeypore, Kishengarh, Ajmir, and Mewar; on the S. by Udaipur and Sirohi; and on the W. by the Ruin of Cutch and Sind. It lies between lat. 24° 36' and 27° 42' N., and long. 70° 6' and 75° 24' E., and has an area of 35,672 square miles. Revenue, 17½ lakhs, with a population about 1,000,000. Its capital is Jodhpur, in lat. 26° long. 73° 8' E., and is a walled city; the palace is built on an abrupt sandstone commanding the town.

is a corruption of Maroo-war, classic-sthali or Moorosthan, the region of also called Maroo-desa, whence the early Muhammadan writers. The style it Marulhar, which is syn-Maroo-desa, or, when it suits their Maroo. Though now restricted to the Rahtor race, its ancient

application comprehended the entire desert, from the Sutlej to the ocean. The sac'-hae or branches of the Rahtor early spread over the desert. The fabulous genealogy of the Rahtor deduces their origin from the raht or spine of Indra, their nominal father being Yavan-aswa, prince of Pailipur, which they say was somewhere in the north. This indicates their Scythic origin.

The river Looni, rising on the eastern frontier at Poshkur, and pursuing a westerly course, nearly bisects the country, and forms the boundary between the fertile and sterile lands of Maroo.

The districts of Deedwanoh, Nagore, Mairta, Jodhpur, Palli, Sojot, Godwar, Sewanoh, Jhalore, Beenmahal, and Sanchore, are the more fertile and populous, with a population of eighty souls to the square mile. The N.E. portion includes a portion of Nagore, the large towns of Filodi, Pokurn, etc., and may be calculated at thirty; the remaining space to the S.W., as Godadeo-ka-thul or desert of Goga, Sheo, Barmair, Kotra, and Chotun, can scarcely be allowed ten.

The Jat constitute five-eighths, the Rajputs two-eighths of the population, while the remaining classes, Bishnavi, Mena, Bhil, Bhat, Charan, with a few Muhammadans, sacerdotal, commercial, and servile, make up the integral number. The Jat are the industrious class. The Rahtor character stands deservedly high in the scale of the thirty-six royal Rajput tribes, but is debased by the abuse of opium. The Rahtor cavalry was formerly the best in India. At one time there were several horse-fairs, especially those of Bhalotra and Poshkur, where the horses of Cutch and Kattyawar, the jungle, and Multan were brought in great numbers. Valuable horses were also bred on the western frontier, on the Looni, those of Raydurro being in high estimation.

The family gave several daughters in marriage to the imperial family of Delhi, and furnished some distinguished generals to the imperial army.

By the 8th Article of the Treaty of 1818 with Maun Singh, the Jodhpur State was bound to furnish a contingent of 1500 horse. Under this article a demand was made in 1832 for a force to co-operate against freebooters who occupied Nuggur Parkar. The contingent proved perfectly useless, and in 1835 the obligation to furnish the contingent was commuted to an annual payment of Rs. 1,15,000 towards the Jodhpur Legion, which was then raised. This legion mutinied in 1857. Maharaja Takht Singh did good service during the mutinies, received the right of adoption, and is entitled to a salute of seventeen guns. The troops kept up by the state do not exceed 6000 men. The Political Agent is also President of the Marwar Interjurisdictional Court of Vakceels, which decides all border disputes arising between Bikanir, Jeysulmir, Kishengarh, Sirohi, Pahlunpore, and Jodhpur. The court is composed of vakceels from these states and from Udaipur, Jeypore, and Seekur. It meets once a year at Ajmir, Balmir, Nagore, and Mount Abu. At the commencement of 1869 the Political Superintendent of Sirohi discovered that both in that state and in Marwar the practice of Samadh, or burying alive, prevailed to a considerable extent, though confined almost entirely to persons in the last stage of leprosy, by whom it was practised to put an end to their sufferings. As it was thought probable that in some cases priestly influence, and in others the desire of the

other members of the family to rid themselves of the presence of a nuisance, might have induced the self-sacrifice, the Political Agent considered it advisable to bring to the notice of the darbar of His Highness the Rao of Sirohi, that Government regarded the commission of a Samadh in the same light as a sati, and that they would expect His Highness to use his best endeavours to put a stop to it. It was also notified that in case of his not doing so, he would incur the displeasure of Government, and the number of guns with which he was saluted would be reduced. His Highness at once issued a proclamation declaring that Samadh was forbidden, and that any one assisting at any case in future would be liable to imprisonment extending to ten years; that the jaghirdar on whose estate it took place would be liable to the same punishment and the forfeiture of his estate; and any raj official, through whose culpable neglect a case might occur, would also incur the same liability. The maharaja of Marwar was also addressed on the same subject, although the Political Agent of that province could not hear of any cases having occurred.—*Treaties, Engagements, and Sunnuds*, iv. pp. 41-45; *Tod's Rajasthan*, ii. pp. 9, 162-64.

MARWARI, from Marwar, a country in Rajputana. In India, generally applied to a Rajput engaged in banking or trade. There are, however, various financing tribes, Saukar, Sarraff or Shroff, as the Marwari, the Bhatya, the Vaisya Komati, the Modi grain-seller, and the Banya. The Marwari arrange themselves into twelve tribes. The Mestri, the Urwar, Bijabargi, Kandalwal, and Porwal are of the Vaishnava sect of Hindus; the Agarwala are partly Vaishnava and partly Jain; but the Sarogi and the Oswal are wholly Jain, and it is from amongst the Ossi tribes of Oswal that the Jain priests of Abu are chosen. These Jaina never use animal food, their offerings are fruits and sugar; and the Oswal and Sarogi never eat the prasadh or meat offered to the idols. Marwari are less frequently of the Saiva sect. The Marwari mercantile men and bankers hold almost exclusively the entire banking business of India, and regulate the exchange operations of almost all the nations of India. The Oswal is the richest and most numerous of the eighty-four mercantile tribes of India, and is said to amount to 100,000 families. They are called Oswal from their first settlement, the town of Ossi. They are all of pure Rajput birth, of no single tribe, but chiefly Pura, Solanki, and Bhatti. Many profess the Jain tenets, and the pontiffs of that faith must be selected from the youth of Ossi. These wealthy bankers and merchants, scattered throughout India, are all known under the denomination of Marwari, which means belonging to Maru or Marusthan, the desert. It is singular, Colonel Tod adds (*Rajasthan*, ii. p. 234), that the wealth of India should centre in this region of comparative sterility. The Marwari is essentially following similar mercantile pursuits to the Vaisya Komati of Peninsular India, and those of the Wani or Bani or Banya, viz. banker and merchant, to which, however, the Komati add that of retail shop-keeping. If a Marwari be asked as to his caste, he replies that he is a Mahajan, a Banya, a Bais or Vais, meaning that his profession is that of the commercial people. But, on further questioning, he explains that the Marwari is a Rajput, that

there are twelve great tribes, of whom are the Oswa, Messar, Agarwala, Bijabargi, Sarogi, Neddatwar, Parwar, and five others. These all subdivide into numerous kap or clans; in the Messar tribe alone are seventy-two, amongst whom are the Rathi and Dhaga. All the Marwari of Rajputana adhere to the principle of reckoning their descent from a founder, and in their marriage ceremonies they abstain from blood relationship, never marrying into their own gotra. Their widows never re-marry. The mercantile tribes of Western India, of Rajput origin, sank the name and profession of arms when they became proselytes to Jainism, in the reign of Raja Bheem Pramar. The Chittur inscription of this prince (he was ancestor of Raja Maun, whose date, S. 770, A.D. 714) allows us to place this grand conversion prior to A.D. 650. The Banya or Komati merchants and bankers are generally of the Vaishnava sect of Hindus, though some of them worship Siva. They are most numerous in Telingana and in Madras. In the north and east of Dekhan proper there is not one of them in twenty villages, their places there being taken by the Marwari race. There are, however, many in Punderpur and Sholapur. Those of the Komati who die unmarried are buried, all others are burned, whether belonging to the Saiva or Vaishnava sects. Their language in their families is Telugu, and it is spoken by them as far as Bombay. But, as the west is approached, Mahrati becomes mixed with it. Komati Banya are essentially shopkeepers, sellers of dry grains, doing a little in mercantile business, and cultivate, but do not hold the plough. They are mostly dark men, of short stature. In their marriages the bridegroom may or may not be before or after puberty, but girls are under age, and the ceremonial is performed at the house by a Brahman. The death sraddha rituals are conducted by Brahmans. Their Janawi or zonar is put on and the mantra taught when married. The Wani of the western coast will only marry with the Komati Banya. They are in considerable numbers in the northern part of Hyderabad, adjoining Berar.—*Tod's Rajasthan*, ii. pp. 134, 234.

MARWAT and Bannu are on the same plain. The people of Marwat are larger in stature than those of Bannu, and are usually clad in coarse white linen, like the Afghan on the banks of the river Indus.

MARWAT. HIND. A pensionary provision in land for the heirs of one who has been killed in battle.

MARY, the mother of Jesus, the Messiah. The Koran says, 'O thou mother of Jesus and sister of Aaron,' thus confusing the two. The Ansariah hold that the planet Venus or Zuhra, Isis of the Egyptians, Mary the sister of Moses, Mary the mother of Jesus, and Fatima - uz - Zuhra the daughter of Mahomed (their goddess), is the same person; the Minerva of Athens, Cybele of the Phrygians, the Ceres of Eleuses, the Proserpine of Sicily, the Diana of Crete, and Bellona of the Romans, the same and identical deity.—*Catafago*.

MARYUL, or Lowland, from Mar, TIB., low, and Yul, land, the non-Chinese portions of the Bhot territories. These are arranged by Colonel Strachey as—(1) that of Bulti, which is the Muhammadan name, and includes Hasora, Rongdo or Rongyul, Shigar, Skardo or Bulti proper, Parkuta, Tolti, Khartaksho, Kiris, Khaypalu, and Chorbati:

and (2) the Buddhist Ladakh, in which we have Spiti, Zangskar, Purik, Suru, Hembaks (Dras), Ladakh Proper or Leh, Nubra, Janksti, Rong, Rupshu, and Hanle. In this list of Colonel Strachey, Lahul, Hungrung, and Kanawar are omitted as Indian; whilst Hasora is treated as Bhot.—*Latham, Ethnology*.

MASAH. ARAB., HEB. Anointing, a form of installation practised in Europe, but which seems to have been of eastern origin. Masih of the Arabs forms the Hebrew Messiah, meaning the anointed one. In Rajputana, anointing appears to have been in all ages the mode of installation. The unguent on this occasion is of sandal-wood and atar of roses made into a paste or very thick ointment, of which a little is placed upon the forehead with the middle finger of the right hand, and then the jewels, the aigrette, and necklace are tied on. Amongst the earliest notices of this ceremonial is that in Genesis xxviii., when Jacob rose up early in the morning, and took the stone that he had put for his pillow, and set it up for a pillar, and poured oil upon the top of it. The Brahmans and Hindus anoint their stone images with oil before bathing, and some anoint them with sweet-scented oil. This practice probably arises out of the customs of the Hindus, and is not necessarily to be referred to their idolatry. Anointing persons as an act of homage has been transferred to their idols. There are resemblances betwixt the Jewish and Hindu methods of, and times for, anointing. Oil is applied to the crown of the head till it reaches all the limbs; it is called *abhyanga*, which is noticed in Psalm cxxxiii. 2, 'It is like the precious ointment upon the head, that went down to the skirts of his garment.' Again, we are told in Mark xiv. 3 that there came a woman, having an alabaster box of ointment of spikenard, very precious; and she brake the box, and poured it on his head; and pouring sweet-scented oil on the head is common amongst the Hindus. At the close of the festival in honour of Durga, the Hindu races worship the unmarried daughters of Brahmans, and amongst other ceremonies pour sweet-scented oil on their heads. Amongst the Hindus the ceremonial is attended to after sickness, which in Psalm xlv. 7 is mentioned thus: 'Thy God hath anointed thee with the oil of gladness.' And Hindus, when fasting, or in sickness or sorrow, abstain from the daily anointing of the body with oil, and again anoint on recovery, as in 2 Samuel xii. 20, where 'David arose from the earth, and washed, and anointed himself, and changed his apparel, and came into the house of the Lord, and worshipped.' Bathing, anointing the body with oil, and changing the apparel, are, among the Hindus, the first outward signs of coming out of a state of mourning or sickness.—*Ward, Hindoos; Tod's Rajasthan*, ii. 568.

MASAILMA and El Aswad, in Muhammadan history called the liars, lived in A.D. 632, in the time of Mahomed. The first was of the tribe of Hanifa, of the Yemama province, and a man of consideration. He at first embraced Muhammadanism, and then for a time set up as a prophet on his own account as a rival to Mahomed, and near the close of the latter's career. He afterwards was slain at Akraha, in a battle near Yemama with Khalid-ibn-Walid, whom Abubakr, Mahomed's successor, sent against him. He fell by the hands of a Negro slave named

Wahsha, and with the same weapon that had despatched Hamza, the uncle of Mahomed.

MASALA. HIND. Properly spices or compounds of spices, also used to mean any compound or substance used in any manufacture or operation.

MASAN. HIND. A place of cremation, a cemetery. Sanskrit, Samasan; and Uriya, Masanihura.

MASCARENHAS. George Mascarenhas accompanied Fernao Peres de Andrade in 1517 to China ports, and paved the way to commercial intercourse with that nation.

MASHA. HIND. A weight in India varying from 14·687 to 18·5 grains troy, the average being 15½ grains. The rupee of Akbar, which was based upon that of Sher Shah, weighed 11½ mashes. The masha or masa is a goldsmith's weight. It is reckoned as 5, 8, or 10 rati or seeds of the *Abrus precatorius*, which usually weigh about 2 grains troy. As an elementary weight, it was the basis of the weight of the current silver coin of India. It is the 12th part of a tola.

MAS'HAB. ARAB. Also call Mahgin, a light, crooked stick about two feet and a half long, used in Arabia for guiding camels. The mas'hab is of almond, generally brought from Syria. At the thick end is a kind of crook, formed by cutting off a bit of larger branch from which the stick grows. This crook is afterwards cut into the shape useful to seize a camel's nose-ring, or a horse's bridle. Arabs of all degrees are fond of carrying these sticks.

MASHAD, the capital of Khorasan, is in lat. 36° 17' 40" N., and long. 52° 35' 29" E., 472 miles from Teheran. It is a place of pilgrimage from possessing the shrine of Imam Raza, from which it is a place of sanctuary (Bast) even for murderers, and some stay there for years. The mosque and its minarets are very fine. The population has been estimated at from 45,000 to 100,000. The Muhammadans bring their dead from great distances to be interred at this holy place. There are 100 families of Jews engaged in petty traffic. The manufactures are shawls, velvets, steel for weapons, silks.—*MacGregor*, iv. p. 311.

MASHAD ALI, a town of Turkish Arabia, 30 miles from the ruins of Babylon. Ali, son-in-law and cousin of Mahomed, is buried here. It was taken by the Saracens in the 7th century. This city, according to Kinneir, was founded by Alexander the Great, and was for a considerable time called Alexandria. It is 30 miles from Hillah, and 4 from Kufa, a town founded by the khalif Umâr.

Mashad Husain or Kerbela is situated a short distance from the west bank of the Euphrates, and not very far from Hillah, the supposed site of Babylon. It is 16 farsang westward from Baghdad, is a place of pilgrimage to Shiah Muhammadans, and is surrounded by gardens and groves of palm trees, which are watered by a canal from the river. The chief object of interest is the mosque, built in the reign of Shah Abbas the Great, on the spot where Husain, son of Ali, was murdered. It is a sacred place of pilgrimage and burial to the Persians who are Shiah Muhammadans. Kerbela fell into the power of the Turks when Sultan Murad iv. took Baghdad, A.D. 1636. The Persians frequently send their dead to be buried at Kerbela from the interior of the country. On leaving Kerbela one

traveller met nine mules laden with coffins, and while at Baghdad he often saw others passing to their last resting-place, near the honoured remains of the grandson of the prophet. The revenue arising to the hierarchy of Kербela from the drains on the purses of its visitors, are enormous, and must more than sufficiently pay for all the expenses of the state. The city is large, and crowded with inhabitants, being respected as a bast or place of refuge. In India, Kербela is the name given to a plain near a sea, river, or tank, whither the Muhammadans at the close of the Maharram festival annually carry their tabut.—*Herklots; Porter's Travels*, ii. p. 281; *Mignan's Tr.* p. 112; *Catagago*.

MASHAIKH, amongst Muhammadans, elders, holy persons, heads of religion.

MASHAJU, HIND., properly Mushajjar, flowered, applied to silk and satin, also to damask table-linen.

MASHAK. ARAB. A leather bucket; leathern bag for carrying water, used by travellers all over the east.

MASHAL. ARAB., HIND. A lamp, a torch. Mashal-chi, a torch-bearer, a lamp-lighter.

MASHALI. ARAB. At Mecca, in most Arab families, male children, when 40 days old, are taken to the Kaba, prayed over, and taken back to their homes, where the barber draws with a razor three parallel gashes down the fleshy portion of each cheek, from the exterior angles of the eyes almost to the corners of the mouth. The cicatrices are called mashali.

MASHOBRA, near Simla. An annual fair is held here, at which women are sold.

MASHRABIYAH. ARAB. A projecting latticed window, made of wood richly carved. Cairo was once famous for these, but they are growing out of fashion with young Egypt, disappearing before glass and green blinds. Lane says Moshan, or more commonly Mashrabiya, are windows of the upper apartments, generally projecting a foot and a half or more, and are mostly formed of turned wooden lattice-work, which shut out the light and sun, while they admit the air.—*Burton's Mecca*, i. p. 51.

MASHRU, a mixed fabric of silk and cotton; striped satin, partly made of silk and partly cotton. Mashru badshahi and Mashru solchi are kinds of satin.

MASJID. ARAB. A mosque, the sanctuary of the Muhammadans for public prayer. From masjid is derived the word mosque, changed by the Egyptian Arabs, who pronounce the letter j as a hard g, so that jab'l, a mountain, jam'l, a camel, and masjid, a mosque, become gab'l, gam'l, masgid. Outside Egypt, as for instance at Aleppo, jam'l becomes softened into jimmael, and masjid into misjeide.—*Burton's Mecca*, i. p. 141.

MASKARAT or Masakkarat. ARAB. A collective name for intoxicating drugs on which excise is laid,—opium, bhang, charras.

MASKAT, the capital of Oman, in lat. 23° 38' N., and long. 58° 35' 50" E. Including the adjacent villages, it has about 60,000 inhabitants. Until the demise of Syud Said, the Oman territories and African districts of Zanzibar were under one dominion. On that event one son took the Oman principality, the other son took Zanzibar. Maskat is built on a slope, rising with a gradual ascent from the sea, where

the water nearly washes the bases of the houses. The inhabitants are descendants of Arabs, Persians, Indians, Syrians, by the way of Baghdad and Basarah, Kurds, Afghans, Baluchis, etc. The Persians at Maskat are mostly merchants, who deal in Indian piece-goods, coffee, hookahs or kaleans, and rose-water. Others, from Bandar-Abbas, Lar, and Menon, manufacture swords and matchlocks, for which there is a great demand in the interior. Banyas constitute a body of the principal merchants. There are a few Jews, who mostly arrived there in 1828, being driven from Baghdad by the cruelties and extortions of Daoud Pacha, when nearly the whole of this race were compelled to fly. Some took refuge in Persia, while others, in their passage towards India, remained here. The same toleration exercised towards all other persuasions is extended to the Beni Israel, no badge or mark, as in Egypt or Syria, being insisted on. When Wellsted wrote, early in the 19th century, about 4000 slaves, of both sexes and all ages, were disposed of annually. The Towayli, from the Zanzibar coast, formed one class. They were known by having their teeth filed, sometimes to a point, and sometimes in notches like those of a saw, also with some perpendicular incisions on either cheek, made with a penknife when the children are five or six years of age, and the scars which remain denote the tribe to which they belong. The price of a Towayli was from 40 to 60 dollars. The Nabi, another race from the interior of Africa, were said to be vindictive and treacherous. The Bedowi here, as in the Hejaz, were the only purchasers. The Galla brought from Abyssinia were highly valued. They fetched from 100 to 150 dollars, the price of the women being about the same as that of the males; and strength, health, and good temper in the latter were considered as a set-off against the comeliness of the former. They brought eunuchs occasionally from Darfur, who fetched from 200 to 300 dollars, and were mostly purchased by the Persians.—*Findlay; Wellsted*, i. pp. 13-388.

MASNAD. ARAB., PERS. The throne of Muhammadan rulers; the embroidered carpet on which dignitaries sit.

MASNAVI. ARAB. A form of poetry where the second line of every distich rhymes with the same letter.

MASNAVI-I-SHARIF, or sacred Masnavi, a book of moral doctrine by Maulana, Jalal-ud-Din Muhammad, Rumi, the founder of the sect to which Europeans give the name of dancing or whirling darveshes, the most important of all the orders of oriental illuminati, and known as the Maulaviah, from the founder. Jalal-ud-Din was descended from Abubakr, father-in-law of the reformer Mahomed, and was himself a grandson of the actual Khwarezmian ruler of Balkh. He settled at Iconium, where he founded a college, and enjoyed a wide reputation as a saint, a worker of miracles, and an inspired poet. The peculiar philosophical and religious tenets which he professed are better known under the name of Sufism, and consist chiefly in the assumption that God is the only actual and real existence, everything else being merely hypothetical; and that man's highest and ultimate aim is reabsorption into the divine principle from which he has sprung. This Masnavi is a complete exposition of Sufi doctrines, illus-

trated with numberless tales, apologues, and scraps of history, and is the work of Jalal-ud-Din himself. Next to the Koran, it is more highly esteemed by the Shiah sect than perhaps any other work. The complete work consists of six books, containing 26,660 couplets, to which some authorities add a seventh book, to make up the number of the seven planets, the seven zones, and the seven heavens. It has been partly translated by Mr. James W. Redhouse. Jalal-ud-Din speaks in the highest terms of his teacher and spiritual guide, Shams-i-Tabriz, whose arrogance and violence led to a tumult, his arrest, and disappearance. The anecdotes in the Masnavi are remarkable, and embody such legends as the following: Solomon, who was king, not only of men, but of the angels, genii, elements, beasts, and birds, was one day holding a court, when a poor fellow who was present suddenly exhibited signs of the most extreme terror, and declaring that it was the Angel of Death who had frightened him, begged Solomon to command the wind to convey him far away to Hindustan, which was accordingly done. Another day, when the Angel of Death attended the monarch's levee, the latter asked him how it was that he had driven the poor fellow forth from his home to wander like a waif throughout the world. The angel answered that God had commanded him to

'Go this very day

And take his soul in Hindustan, his debt to pay.
In wonder then I said within myself: "Had he
A hundred wings, in Hindustan he could not be."
But going still to Hindustan, by God's command,
There I found him, and took his soul with my own
hand.'

Jalal-ud-Din revived the use of music and dancing as aids to devotional ecstasy, and his great poem commences with a few stanzas in which the reed-flute is made to complain of its separation from its native reed-bed by the river side, and to declare the harmony of its own musical lament with the varying moods of man, whose soul is likewise ever sighing at its separation from the divine source from which it sprang. This is the key-note of the mystic philosophy, and forms an appropriate introduction both to the poem and the religious exercises of the sect, the members of which always preface their evolutions by chanting these very verses. The plaintive and traditional melody to which they are sung is given in Carl Engel's work on the music of all nations. Starting from this point, the poet presently leads on to the next great doctrine of Sufism, and, indeed, of every other form of mysticism, particularly the Christian, namely, that God is everywhere and everything is God; that God is the only legitimate object of man's love and aspiration, but that the veil of matter and of sense prevents the union of the two. As the Masnavi puts it—

'Nature's great secret let me now rehearse:
Long have I pondered o'er the wondrous tale
How Love immortal fills the universe,
Tarrying till mortals shall his presence hail;
But man, alas! hath interposed a veil,
And Love behind the lover's self doth hide.
Shall Love's great kindness prove of none avail?
When will ye cast the veil of sense aside,
Content in finding Love to lose all else beside?'

To arrive at this state of emancipation from the trammels of sense, and lose themselves in the con-

templation of the Infinite, is the object of the darveshes' dance and of other ecstatic performances. The incidental stories scattered through the poem are all interesting. But it is the quaint wisdom, the cheerful, though transcendental, philosophy, and the really elevated thoughts, which form the chief charm of the Masnavi.

MASON, REV. S., wrote on the Fauna, Flora, and Minerals of Tenasserim, of British Burmah, and Pegu, Lond. 1852; also author of *Burma*.

MASON WASP, of Ceylon, is the *Pelopæus spinola*, *St. Fargeau*, one of the *Sphegidae*. The *Ampulex compressa*, which drags about the larvæ of cockroaches into which it has implanted its eggs, belongs to the same family. The male of the mason wasp of India is about $1\frac{1}{2}$ inch long, of a bright brown-yellow. The female is about $\frac{1}{2}$ of an inch long, of a bright bottle-green. The male makes a round house of mud, in compartments, into each of which the female drops a few eggs, and the male thrusts in large green caterpillars for the subsistence of the young.—*Tennent*.

MASSAGETÆ. According to Strabo (lib. xi.), all the tribes east of the Caspian were called Scythic. The Dahæ were next the sea; the Massagetæ and Sacæ more eastward, but every tribe had a particular name. All were nomadic, but the best known are the Asi, the Pasiani, Tachari, Saccarandi, who took Bactria from the Greeks. The Sacæ made irruptions into Asia similar to those of the Cimmerians, and possessed themselves of Bactria and the best district of Armenia, called after them Saca-sena. Of the first migrations into India of the Indo-Scythic Gete, Takshak, and Asi, that of Sehesnag from Sehesnagdes (Takshak from Tacharist'han), six centuries before Christ, is the first noticed by the Puranas. About the same period a grand irruption of the same races conquered Asia Minor, and eventually Scandinavia, and not long after the Asi and Tachari overturned the Greek kingdom of Bactria. The Romans felt the power of the Asi, the Catti, and Cimbri from the Baltic shore. Colonel Tod (i. p. 49) supposes the Asi and Tachari to be the Aswa and Takshak or Turshka races of the Purans of Sukadwipa; the Dahæ to be the Dahya, now extinct, one of the 36 royal Rajput tribes, and he supposes them to be the descendants of Baldeva and Yudishthra, returned under different appellations. The country on the east is still occupied by the Turkoman race. Herodotus (Clio, i. c. 216) mentions that they were said to eat their aged relatives. When any one was far advanced in years, they called together their immediate friends and neighbours, and, having sacrificed him, made a common feast upon his dead body.—*Chutfield, Hindustan*, p. 181; *Herod. lib. i. sect. 216*. See Gete.

MASSEH ISLANDS, in the Bay of Tajura, near Arabia, were purchased by the British in 1840, but never occupied.—*Horsburgh*.

MASSICOT.

Yuen tan, . . . CHIN. | Yellow monoxide of
Hwang-tan, . . . , | lead, ENG.

It is an oxide of lead obtained by heating lead, or by adding sulphur, nitre, and vinegar to melted lead. It is often prepared from the dross of the melted metal. It is of a pale yellow colour, and is used as a pigment.—*Waterstone*, quoted by *Faulkner*.

MASSOBA, a celebrated idol. In the Chauki

pass, in the Lakenwara range, which forms the watershed between the Godavery and the Tapti, about 10 miles north of Aurangabad, there is a shrine of this deity to which, from a circle of a hundred miles, people of all castes resort.—Brahman, Sudra, and Dher, but chiefly the Mahratta Kunbi. The Jatra is held in the month Cheita, and lasts for four days, during which many sheep are offered in sacrifice. It is in the northern side of the pass, a mere block of stone, with smaller stones at its foot all smeared with red lead. The objects of their pilgrimage are wholly personal, beseeching the deity to give them, or preserve their children, their flocks, and their food.

MASSON, CHARLES, a traveller and numismatologist, author of *Journeys in Baluchistan, Afghanistan, and the Panjab*, Lond. 1842, 3 vols.; *Notice of the Countries West of the Indus*, in *Bom. Geo. Trans.*, 1836–1838; *Narrative of a Journey to Kalat*, including an Account of the Insurrection in that Place in 1840, and a Memoir on Eastern Baluchistan, London 1843.

MASSOWAH ISLAND, in the Bay of Arkeeko, on the west coast of the Red Sea, about half a mile long, is about 4 miles N. of Arkeeko, at the N. extremity of Abyssinia. Half of the island is occupied by tanks and a burial-ground, and on the inner half is the town, which is crowded with habitations to the water's edge. Eight or ten large ships, with double the number of smaller ones, could be securely moored in the harbour. There is also a good harbour called Daha-leah, larger than Massowah, about a mile to the north. Fresh water is not abundant either here or in any other part of the Red Sea, but the supply at Massowah could probably be increased by digging wells on the mainland. The rainy season is from November to March. There is no other spot but Massowah and its immediate neighbourhood where ships could lie safely for any time, and where troops and munitions of war could be disembarked with celerity and safety.—*Findlay*; *Lieut.-Col. H. James, R.E., in Par. Paper*.

MASSURI, a sanatorium on the Himalaya. The following heights of mountains and points in the environs of Massuri were determined by the great Trigonometrical Survey of India, under General Sir Andrew Waugh:—

Hatipam, . . . 7109 feet.	Himalaya Club, 6849 feet.
Edge Hill, . . . 7070 "	Camel's Back, . 7143 "
Green Mount, . 7002 "	Massuri Bazar, 6719 "
Laltip, . . . 7602 "	" Church, 7369 "
Eagle's Nest, . 7041 "	Landour, " 7369 "
Bellevue, . . 7125 "	" Bazar, 6808 "
Waverley, . . 7057 "	

MAST. PERS. Coagulated milk or clotted cream, slightly sour, which, when diluted with water, forms ab-i-dugh, a beverage in warm weather equally grateful and salubrious.—*Ouseley's Tr.* i. p. 268.

MASTAKA, also Chinna Mastaka, in Hindu idolatry, is a form of Parvati as Kali, and possibly is the sakti of Siva, in the form of Kapali. She is described as a naked woman, with a necklace of skulls. Her head is almost severed from her body, and her blood is spouting into her mouth. In two of her hands she holds a sword and a skull. In a note in Ward's work on the Hindus, it is stated that this goddess was so insatiate of blood that, not being able at one time to obtain enough of that of giants, she cut her own

throat to supply herself therewith. Ward derives the name from Chinna, cut off, and Mastaka, a head.—*Cole, Myth. Hind.* p. 94; *Ward's Hindoos*.

MASTAKANAGRAHA or Mastan. URIYA. A Brahman race of Orissa following agriculture.

MASTAKAVAGRAHNA. MAHR. A ceremony in the rite of adoption of smelling the head of the adopted child.—*W.*

MASTIC, Mastik.

Mastaka, ARAB.	Kinnoli, Kinneh, . . PERS.
Mastix, DAN., GER., SW.	Mastique, PORT.
Rumi mustaki, . . . HIND.	Sakes, TURK.
Mastico, IT.	

Mastic resin is produced in Scio, from an incision in the bark of the *Pistacia lentiscus*, the mastic or lentish tree. That which collects on the branches of the trees is called mastic in the tear, and fetches the highest price, while that which falls to the ground constitutes the common mastic. Mastic varnish is well known from its transparency and peculiar toughness and tenacity, even when spread in the thinnest coat on wood or on canvas. This is due to the presence of a peculiar resin, which does not possess any acid properties, and which has a composition C. 40 H. 31 O. 2. Dissolved in spirits of wine or oil of turpentine, it makes a very pale varnish; it is brilliant, works easily, and flows better on the surface than most other varnishes. It can also be removed by friction with the hand; hence its use as a picture varnish and for other delicate works. It is imported into India from the Persian Gulf, also from Kābul, and is used by the natives as an astringent in diarrhoea, which property it owes to the volatile oil contained in it; also in all diseases depending on an undue accumulation of phlegm. Price, one shilling per pound.—*M.C. Dict.* p. 796.

MASTISA, from the Portuguese Mestico, person of mixed Indian and European descent.

MASTIXIA ARBOREA. *Wight*.

Bursinopetalum arboreum, | *B. tetrandrum*, *Wight*.
W. Jc.

A large tree of Ceylon, very abundant in the dense moist forests of the Western Ghats, from Canara southwards to Cape Comorin, at elevations from 2000 to 7000 feet. It is abundant in the Bolamputty forests at 2500 feet elevation, and is common on the Neigherries at 6000 to 7000 feet. At the higher elevation it is not nearly such a large tree, but its leaves are much larger and more coriaceous, and its flowers are larger.—*Beddome, Fl. Sylv.*

MASTODON, a genus of extinct mammals of great size, of several species, of which remains have been found in the Siwalik Hills, in Perim Island, in Burma, viz. *M. angustidens*, *M. arvernensis*, *M. latidens*, *M. longirostris*, *M. Perimensis*, *M. Sivalensis*. *Mastodon latidens* and *M. Sivalense* have been found fossil both in Ava and the Siwalik Hills. They are found in the upper miocene strata. Dr. Faulkner considered the Siwalik deposit to be synchronous with that from which Mr. Crawford obtained the remains near Prome, on the banks of the Irawadi. Captain Cautley found jaws in which the front teeth are not to be distinguished from the teeth of *M. latidens*, and those in the rear from the teeth of *M. elephantoides*; he conceived that the distinction which was established on detached teeth will be found to be erroneous.—*Eng. Cyc.*

MASUDI, the literary title of Abu-l-Hasan, Abi, A.D. 890-956, author of *Meadows of Gold and Mines of Gems*. He met Abu Zaid at Basra, A.D. 916 (A.H. 303). Masudi mentions that, at the time of the Muhammadan conquest, the country about Basra was called Arzul-Hind, the Land of India. The *Meadows of Gold*, *Kitab Mirooj-u-Dhahab*, treats of all things in nature and history, and of China. He travelled far and wide, and from a very early age, visiting Sind in A.D. 912, and afterwards, according to his own account, Zanzibar and the island of Kanbalu, *Changju*, China, and the country of Zabaj, besides travelling a long way into Turkestan. He mentions that in his time, A.H. 332, offices in India were hereditary. His is a historical and commercial cyclopaedia. He mentions nutmegs, cloves, cubebs, camphor, araca nuts, sandal-wood, and aloes-wood as productions of the Indian Archipelago. It was translated by Dr. Aloys Sprenger.—*Ind. in 15th Century; Prairies d'Or*, iv. p. 225, in *Yule, Cathay*, i. pp. 110, 243. See Literature.

MASULA BOAT, a boat built without knees, used on the Madras coast for crossing the surf. The planks are sewed together over withes of straw, and the boat has no thwarts. They are used in landing and discharging cargoes, and carrying passengers to and from ships in the roads. They are sometimes broken to pieces from the heavy surf, which at times runs as high as from 6 to 10 feet. A catamaran can be kept in attendance as a life-preserver, in the event of any accident to the masula boat by upsetting, or in case of any of the occupants being washed out by the surf. The masula boats receive their cargoes and passengers from the ships outside the surf. They are rowed by twelve men, with bamboo or casuarina paddles, that is, a board about 10 inches broad and 14 inches long, fixed at the end of a bamboo or young casuarina tree. They are steered by one or two tindals (coxwains), and two men are constantly kept to bale out the water; from which employment they are promoted to the paddle or bow oar; after which they fall aft in rotation, to be a tindal or steersman. The steersman gives time by a song, which is sung by all the boatmen; and according as its modulations are slow or quick, the oars are plied. These modulations are regulated by the waves, as they may be slow or rapid, in succession. On one occasion, when a passenger of rank showed impatience at this noisy song, the boatmen were desired to cease, but the steersman refused compliance with the order, saying that without his song he would not be answerable for the safety of the passenger. The dimensions of the masula boat are from 30 to 35 feet in length, 10 to 11 feet in breadth, and 7 to 8 feet in depth.—*Note by Sir J. Malcolm; Edye; Orme*.

MASULIPATAM, in lat. 16° 9' N., and long. 81° 13' E., a large town on the Coromandel coast. Masulipatam is supposed to be the ancient Mesolia. Every village has a tutelary goddess, whom the aboriginal races worship. The Kistna, the chief river, is a sacred stream. The harbour of Masulipatam is an open roadstead, and large ships lie two or three miles off. It was the earliest British settlement on the continent of India, a factory having been opened there in 1522. It was acquired by a treaty with the

Nizam, 6th April 1759. During the cyclone of 1864, a storm-wave swept over the land. The whole country in the vicinity of Masulipatam was submerged, and 60,000 men and animals destroyed. There are two large mountains in the district, one at Bezoara, on the bank of the Kistna, and the other at Condapilly; the former is called Indrakaladry, and the latter Condapilly Durgum.

MASUM ALI SHAH, a Syud of the 12th century, who went about calling Anāl-Haq, I am the true God! He was put to death.

MAT, BURM., in the weights of Burma, is the one-fourth part of a kyat or tikal.

MATA, or mother, is a term applied to the sakti of the god Siva. It is said that Mylitta of the Babylonians, a name of Succoth-Benoth, also meant mother. The sakti of Siva is also called Vali or Bali, under which appellation she assumed the form of a girl twelve years of age. In Madura, at Balane, and other places, virgins used to go to the temple once in their lives to offer themselves in honour of the goddess. The story was that a god had intercourse with them. In all the temples of Siva and his consort, women are kept to dance and sing before the idols.

Mata is the Hindu goddess who presides over smallpox, also styled Sitala.

Mata Janavi, the mother of births, is the analogue of the Juno Lucina of the Rajputs. Mata-ji is the universal mother, worshipped in India from the most ancient times. In a temple to Mata-ji, the universal mother, in Rajputana, is an inscription to the purport that Koinarjal Solanki and his son Sobunpal, in the month of Pos (the precise day illegible), (S. 1207, winter of A.D. 1151), came to worship the universal mother in her shrine at Palode.

About the beginning of August 1882, a terrible tragedy occurred in the village of Khera, close to Wudhwan. The corpses of five Koli—father, mother, and three grown-up sons—were discovered, in each case the head being nearly severed from the body by a sword-cut at the back of the neck. The fourth and eldest son was missing. On search being made, his dead body was found in a neighbouring well. The whole family was thus accounted for. The bodies of the parents and one son were found in their own house, those of two other sons laid out on either side of the entrance of the temple of Khodiar Mata close by. It is supposed that the whole family devoted themselves as willing victims in sacrifice to the Khodiar Mata, an incarnation of the bloodthirsty Kali, and that the eldest son, after slaying his parents and brothers with the sword, threw himself into the well where his corpse was found.—*Tod's Rajasthan*, i. p. 357, ii. p. 618; *Roberts, Or. Ill.* p. ix.

MATABHANGA, or Hauli, one of the three great rivers of Nadiya, the other two being the Bhagirathi and Jalangi. All three rivers are offshoots of the Padma, the main channel of the Ganges.—*Imp. Gaz.*

MATADAR, the headman of a village in the Kaira and Ahmadabad collectorates, from Matu, a signature.

MATA-GLAP. MALAY. The diseased or dis-tempered condition of a Malay, when he runs demented or amok.

MATA KOOUR, a colossal alto-relievo, situated

near Kussia Tanna, in pargana Sidown, eastern division of the Gorakhpur district.

MA TAMPI, Karta, and Kaymal are titles added to the names of remote descendants of zamindars and petty princes of Travancore.

MATAWLAH. ARAB. A Shiah sect of Muhammadans in Syria. Their principal possessions are in the Anti-Libanus, and in Bilad Bishara in Palestine, Balbec being their chief station.

MATCHLOCKS or toradar-banduq of a peculiar make were manufactured in the Shorapur district, as also jumbea, knives, daggers, etc., etc. The price of a good matchlock without ornament is from Rs. 10 to 12. A superior matchlock is made at Koteli; the barrel is filed smooth on the outer surface, and, being carefully cleansed from grease by scouring with wood-ashes, is set upright in a hollow cylinder of brass, which is filled with a solution of white vitriol in water. The cylinder is placed upon a slow fire, and in two days the veins of the damask are developed in high relief. Nothing can be imagined more elegant than the twisted damask of Koteli. It surpasses that of Herat. The straight damask being less tenacious than the twisted variety, should be made of greater solidity. Matchlocks are usually constructed with an oviform chamber, which is harmless enough with the weak gunpowder of the hazars, but dangerous when English gunpowder is employed. It no doubt economizes the charge. The barrel is made to swell abruptly at the breech, to accord with the shape of the chamber. The matchlock of Herat is generally rifled, a process unknown at Koteli, where, however, flint and detonator locks are made superior to those of most Indian fabrics. The rifling process is very rudely contrived at Herat. In a cylinder of hard wood corresponding in length with a gun-barrel, two parallel and spiral grooves are rudely chiselled; a collar of wood is formed in an upright post, opposite to another post, into which the barrel is to be jammed, and within this collar are two short iron pegs, fitting into the grooves of the cylinder. A boring-rod is then firmly attached to the cylinder, the cylinder forming both handle and guide. The boring-bit is a cylindric rod rather thicker towards the extremity than elsewhere. Its thickest portion exactly fits the muzzle of the piece. It has a groove at the extremity, into which fits a small sharp wedge of hardened steel. When first inserted into the barrel, this wedge scarcely projects above the surface of the boring-rod. It is now introduced into the muzzle, and the wooden cylinder is pushed forward by the workman, who leans his weight against it. Of course, as it enters the barrel, the spiral grooves of the wooden cylinder, being guided by the fixed pegs in the collar, give the rod and bit a corresponding spiral motion, by which a spiral scratch is made in the interior of the barrel. The wedge is then slightly heightened and the scratch is thus deepened, until the workman considers it sufficient. This process is repeated until six or seven grooves have been formed. The Herat rifle, being carefully loaded with balls wrapped in leather or cloth, is tolerably true.

MATH, Asthol, or Akora, also Mathan in the Tamil language, are the residences of the monastic communities of the Hindus, and are scattered over the whole of India. They generally comprehend a set of huts or chambers for the

mahant or superior and his permanent pupils; a temple sacred to the deity whom they worship, or the samadh or shrine of the founder of the sect, or some eminent teacher; and a dharmasala, one or more sheds or buildings for the accommodation of the medicants or travellers, who are constantly visiting the math. Most math's have endowments of land, generally of small extent, but as the math's are numerous, the quantity of land in a district pertaining to a math is extensive. But besides lands, they receive presents from lay votaries, ask alms daily in their neighbourhoods, and sometimes traffic. The math is under the entire control of a mahant or superior, with a certain number of resident chela or disciples, with a large number of vagrant or out-members. The math's of the various districts look up to some of their own order as chief, and, under the presidency of this chief mahant, on the demise of any of their brethren, they elect a successor from amongst the chela or disciples, the new mahant being regularly installed at the hands of the president of the assembly, by investment with the cap, the rosary, the frontal mark or tika or other monastic insignia. In these matters the British Government never interfere. Amongst the Hindus, there is a lay and a priesthood class, the latter being sometimes monastic and sometimes secular, and the Vaishnav sect leave this a matter of choice. The Vallabhacharya sect, indeed, give the preference to married teachers, and all their gosains are men of business and family; the preference, however, is usually assigned to teachers of an ascetic or cœnobitic life. The cœnobitic members of the different communities, at one period or other of their lives, have pursued an erratic mendicant life, travelling over India singly or in bodies, subsisting by alms or merchandise, or some of them, as must be the case amongst such large bodies of men, by less unexceptionable means, like the Sarabaites of the east, or the mendicant friars of the Latin Church. The doctrine that introduced similar unsocial institutions into the Christian church in the 4th century, is still most triumphantly prevalent amongst Hindus and Buddhists in the east, the land of its nativity. Monastic establishments and solitary mortification originated in the specious appearance and pompous sound of that maxim of the ancient philosophy, that in order to the attainment of true felicity and communion with God, it was necessary that the soul should be separated from the body here below, and that the body was to be macerated and mortified for that purpose.—*Wilson in As. Soc. Proceedings.* See Monastery.

MATJIA. HIND. The forehead, the brow of the head. Matha Din, a name applied by the Sikhs to the Hindus, because of the sectarian marks which the latter place on their foreheads.

MATHANI. ARAB. A term employed by Mahomed to designate certain reiterated passages in the Koran.

MATHERAN, a hill in the neighbourhood of Bombay, with lovely scenery, wooded lanes, and the air fragrant with wild flowers. The best views are from Garbut Point in the morning, and from Panorama Point in the evening, from the latter looking down on Bombay with its broken coast and harbour, on Malabar Hill, by Mazagon and Mahim, a scene rarely equalled. It is in lat. 18° 58' 50" N., and long. 73° 18' 20" E., 2460

feet above sea-level, and is within four hours of Bombay by rail.

MATHURA, in lat. $27^{\circ} 30' 2''$ N., and long. $77^{\circ} 40' 3''$ E., in Hindustan, on the right side of the Jumna, 35 miles N.W. of Agra. Mean height of the cantonment, 655 feet. It was founded by Satrugna, the younger brother of Rama. It has been a place of note from remote antiquity, and in Buddhist times it was one of the centres of that religion. At Fa Hian's visit it had 20 Buddhist monasteries, and about 3000 monks. Its western half is now the home of Vaishnava Hinduism. The river Jumna runs through the district. On the right bank are the Kosi and Ch'hata parganas, and on the left those of Noh-jhi, Mat, and half of Mahaban as far east as the town of Baldeva. This extent is almost identical with Brijmandal of Hindu topography, the circuit of 84 kos in the neighbourhood of Gokal and Brindaban, where the brothers Krishna and Bala Rama grazed their herds. On the Baibhar Hill are sacred temples and wells, the wells at the foot being clustered around the large Brahma-kund. The Gauga-Jumna-kund has warm water. The tract of country around Agra, and principally the plains of Mathura, is that famed in Hindu legend where Krishna and the nine Gopia usually spent the night in dancing.

Mathura is one of the five districts,—Agra, Mathura, Eta, Aligarh, and Manipuri,—which together make up the Agra division of the N.W. Provinces. Its area is 1435 square miles, with a population of nearly a million of Hindus, of Jat, Brahman, Thakur, and Banya races.—*Growse*.

MATHURA NATII, a librarian of the Hindu college, author of History of the various Hindu Sects.

MATI of Tahiti, *Ficus prolixa*. Mati fruit is used for dyeing cloth of a red colour. The bark of the tree is made into cordage.

MATICO (*Artanthe elongata*), the leaves used as a styptic in Peru, a powerful vegetable astringent, first made known to the medical profession by Dr. Jeffreys of Liverpool. The leaves are covered with a fine hair.—*Lancet*, January 1839.

MATIYA cultivators of Jeypore say their ancestor sprang from the soil, and they point to an opening from which he came.

MATRI. SANSK. A mother; in Hinduism, a class of female divinities of a mystical character, the mothers of the gods, also their personified sakti or energies.—*Wilson*.

MATRICARIACEÆ, an order of plants spread all over the globe, including about 900 genera. About 132 genera and 700 species occur in the E. Indies. The medicinal, economic, or food plants are of the genera—

Vernonia.	Eclipta.
Elephantopus.	Blainvillea.
Ageratum.	Xanthium.
Adenostemma.	Moonia.
Eupatorium.	Wedelia.
Tussilago.	Wollastonia.
Aster.	Guizotia.
Sphæranthus.	Sclerocarpus.
Grangea.	Helianthus.
Berthelotia.	Verbosina.
Conyza.	Spilanthes.
Blumea.	Matricaria.
Ephaltes.	Pyrothrum.
Inula.	Chrysanthemum.
Vicia.	Artemisia.
Pulicaria.	Tanacetum.

Eclipta.
Blainvillea.
Xanthium.
Moonia.
Wedelia.
Wollastonia.
Guizotia.
Sclerocarpus.
Helianthus.
Verbosina.
Spilanthes.
Matricaria.
Pyrothrum.
Chrysanthemum.
Artemisia.
Tanacetum.

Myriogyne.
Sphæromorpha.
Machlis.
Helichrysum.
Gnaphalium.
Antennaria.
Leontopodium.
Carpesium.
Ligularia.
Cacalia.
Senecio.
Saussurea.
Aplotaxis.
Dolomia.
Amorbo.
Centaurea.

Carthamus.	Cichorium.	Lactuca.
Carduus.	Tragopogon.	Taraxicum.
Serratula.	Scorzonera.	Sonchus.
Oreoseris.	Picris.	

Species of Aster, Calliopsis, Bellis, Zinnia, Helianthus, Tagetes, Chrysanthemum, Artemisia, Centaurea, are ornamental or fragrant flowering plants. Vernonia anthelmintica, the Som-raj of Bengal, is used medicinally. The leaves of Eupatorium triplinerve, *Vahl*, were formerly employed in India and America in snake-bites, and are still used in the Mauritius as a substitute for tea. Sphæranthus mollis and species of Blumea are fragrant plants. Guizotia Abyssinica is a valuable oil plant, Cynara scolymus is the edible artichoke, Cichorium intybus, the chicory or succery, etc. Endivia, the endive, and Taraxicum dens leonis is employed in old-standing ailments.

MATRICARIA CHAMOMILA. *Lin.*

M. sirsiciformis, *D.C.* | M. prehex, *D.C.*

Ye-kiuh-hwa, . CHIN. | Babuna, Sutei-gul, HIND.

This occurs wild in China and in the plains of the Eastern Panjab, but is also cultivated. Might be used as a substitute for Anthemis, chamomile flowers, in dyspepsia, flatulency, and intermittents, as an aromatic tonic and carminative. It was formerly used for chinchona.—*Dr. J. L. Stewart*.

MATRICARIA SUAVEOLENS. *Lin.* M. chamomila, *Wall*. This chamomile plant grows in Persia, Kashmir, and India.—*Roxb.* iii. p. 437; *Voigt*.

MATS.

Matten, . . . DUT., GER	Galeran, Klasa, MALAY.
Nattes, . . . FR.	Burya, . . . PERS.
Chattai, . . . GUJ., HIND.	Esteiras, . . . PORT., SP.
Stuoje, Stoje, . . . IT.	Progosliki, . . . RUS.
Tikar, Bogor, . . . MALAY.	Hassir, . . . TURK.

Mats are formed of rushes, of the bark of trees, or of the leaves of different species of palm trees, interwoven, and are made in all countries. In Russia, bast mats are manufactured from the inner bark of the lime tree, and China mats are in general use in India for covering floors and lining staircases. In India, in places where bamboos or canes grow readily, mats are made of these materials, but also of—

Andropogon muricatus.	Pandanus odoratissimus.
Arundinaria falcata.	P. furcatus.
Arundo donax.	Papyrus pangorei.
A. tibialis.	Phoenix dactylifera.
Borassus flabelliformis.	P. sylvestris.
Calamus rotang.	Phrynium dichotomum.
Chamarops Ritchiana.	Saccharum sara.
Cocos nucifera.	S. fuscum.
Cyperus inundatus.	S. spontaneum.
Hedychium spicatum.	Thalia dichotoma.
Malocochate pectinata.	Typha angustifolia.
Maranta dichotoma.	T. elephantina.

Saccharum fuscum, the Khari of Bengal, is made into the mat called Chanch. Cyperus inundatus, the Meliya of Bengal, is made into the Jhental mat. Palghat mats, made of the split stems of a species of Cyperus, are very strong and durable, pleasant and cool to lie on, and remarkable for their quiet colours and peculiar patterns. The Darmas mat of Bengal, used to sleep on, is made from the Arundo tibialis. The Moula mat, the Kachkachya, the Valandiya, the Kati from the Pati grass, and the Hogala, are other mats. Table mats in use by the people of India are often gold-embroidered.

The leaves of the Pandanus odoratissimus make a very fine matting, largely employed by cabinet-

makers as a packing material. The leaves of the palmyra are largely used for the palm-leaf books in use by Hindu and Buddhist sects. The stalks of *Andropogon muricatus* are used as a thatch grass, and its roots are woven into screens, called *tatti*, which are wetted to cool the atmosphere.

In Arakan there are six kinds of bast, called *Sha*, which might be successfully fabricated into mats. The *Sital Pati* mats of Bengal are made from the *Phrynium dichotomum*. Several species of *Typha*, *Juncus*, and *Saccharum*, in the Madras Presidency, are applied to useful purposes. Many of the mats exported from Calcutta are made from the *Papyrus pangorei*. Some of the Burmese mats are made from the split stems of the *Maranta dichotoma*, called *Then*, which grows abundantly in the forests of Burma and the Tenasserim Provinces, but the large coarse mats in general use in Burma are made from the leaf of the *Pandanus furcatus*? *Tha-ban*, BURM., known as the lowland screw pine, in distinction to the highland species of *Pandanus*, which grows on the high lands above tide' water, from which the smaller and finer mats are fabricated. Chinese table mats are exported to all parts of the world. Floor mats of China are made of a rush cultivated for the purpose; the best are the *Lien-tan* mats, plain white or plain red and white. The manufacture of matting for sails of Chinese boats and junks, for floors, for bedding, and envelopes of boxes and cases, employs thousands of workmen. The exportation is to the United States, India, South America, Sydney, etc. Besides mats made of rattan for table-furniture, grass mats for floors are largely exported from China. The latter is manufactured of different widths and patterns, and though the amount annually sent abroad is large, it forms a very small proportion to the home consumption. A sail containing nearly 400 square feet can be obtained for ten dollars. The rolls are largely exported and still more extensively used in the country for covering packages for shipment. A stouter kind made of bamboo splints serves as a material for huts, and many other purposes that are elsewhere attained by boards or canvas.

The manufacture of mattings from coloured grass has long been carried on successfully in the Madras Presidency, and those from Cochin, Palghat, Tinnevely, and Wandiwash are in considerable demand, on account of their brilliancy of colours, fine quality, and extreme cheapness. Several grasses appear to be employed, some being broad, flat, and soft, while others are round, fine, and wiry; the mats of Cochin, Palghat, and the western coast are of the latter description, and are the more durable.

The plain coir mattings of Malabar, and the coloured red and black matting of Canara, are well known. The local names of the Palghat mats are—*Manha Poo Paya*, *Cooroo Nare Virallee*, *Anjee Pooketty Mookaya Velle*, *Shooyakunden Virallee*, *Kella Mooka Virallee*, and *Ketta Mookya Virella*. Excellent mats are made in the Laccadive Islands, from the cocoanut leaf cut out of the heart of the tree just before it unfolds. These are employed in the islands as ships' sails; they are of fine quality, and much esteemed when exported. In the Peninsula of India, however, the most common and most generally useful mats are formed of the bamboo,

those made with the shining outside strips are used for matting of rooms where the rattan is not procurable. Common bamboo mats are used for lining vessels previous to receiving cargo, and for covering bullock carts. Rattan mats are generally preferred for rooms; *Tonga* mats, similar to those of Bengal, are prepared in many parts of Southern India; date-leaf and palmyra-leaf mats are generally used by natives for sleeping on, and are very useful. Palghat mats and those from Cochin are considered the finest in Southern India. Mats of Travancore are made from the grass *Cyperus textilis*, and another grass called *Cooray*.

The mats of Sylhet are famed. Hindus sit on mats, and have large pillows at their backs, upon which they rest their arms. Europeans use only the better kind of mats, and almost exclusively for the covering of floors in their houses, but natives employ them to sit and sleep upon. Every Muhammadan, however poor, after having performed the prescribed ablutions, spreads a small mat before him while saying his prayers. The Hindu uses it as a sort of table-cloth; in many a poor hut it constitutes the only piece of furniture perceptible. The finest kinds of the Bengal matting are manufactured at Midnapur, near Calcutta. The price varies according to the size of the border, which is coloured either red or black; and one large mat, 25 feet square, cost at Midnapur £30. But besides these extremely fine mats, a cheaper description is manufactured, of which considerable numbers are exported to Madras, Bombay, Mauritius, and Australia. These are much cheaper; and a good strong mat, about 20 feet square, may be had for £4, if plain, and £5, 10s., with a black or red border. The mats next in point of fineness are those from Jessore, also in the vicinity of Calcutta, and called *Sital Pati*; these, however, are never made, for India, of the size of an entire room floor, but only in the shape of rugs, and have invariably a red border, sometimes also a red-flowered centre. They are generally made about 4 to 5 feet long and 2 broad. At Hoogly, near Calcutta, an inferior kind of small mat is made, of which very large quantities are exported to Mauritius, Demerara, and New South Wales. The small mats made in the Madras Presidency, North Arcot, and the whole of the Malabar coast, are celebrated.—*Williams' Middle Kingdom; Rohde, MSS.; M'Culloch, Cat. Ex.* 1862.

MATSA KANDA. TEL. *Pterospermum acerifolium*, *Willd.* The petals bruised in honey are reckoned a cure for stomach-ache.

MA-TSO-BOO. BURM. A shout of the Burmese maidens at their water festival. On the first day of the New Year, this festival begins, and lasts for four days. At daybreak, they sprinkle the pagodas with water, and present jars of water to the priests, and ask forgiveness for any wicked thought, word, or deed of the bygone year. The carnival then begins. The fronts of the houses are decorated with green leaves and flowers; and all, but particularly the young men and maidens, send showers of water on all they meet, loudly shouting *Ma-tso-boo! Ma-tso-boo! not wet.* It is a joyous time, in which the young rush about, their light dresses all wet, clinging to their litho figures.—*Briggs.*

MATSYA, the fish avatars of the Hindu god Vishnu, has been demonstrated to have immediate reference to the general deluge; and to be the

same history, disguised in oriental fiction, of that event, as is related in the Hebrew Scriptures. Sir W. Jones assents to the opinion of Bochart, that the fable of Saturn was raised on the true history of Noah. He shows that the seventh Menu, Satyavrata, corresponds in station and character. In his reign, the Hindus believe the whole earth to have been destroyed by a flood, including all mankind, who had become corrupt, except the pious prince himself, the seven rishi, and their several wives, who, by command of Vishnu, entered a *habitra*, or spacious vessel, accompanied by pairs of all animals. Vishnu, assuming the form of a fish, commanded the ark to be fastened by a cable, formed of a vast serpent, to his stupendous horn, secured thereby until the flood subsided; when he and Brahma slew a monster named Hyagriva, who, while Brahma was reposing at the end of a kalpa, stole the Vedas, and mankind had consequently fallen into the depths of ignorance and impiety. This mighty demon is called the prince of Danava, a name which means horse-necked. The Vedas having been recovered, the world was progressively re-peopled with pious inhabitants, descendants of the devout Satyavrata and his favoured companions. The history of this avatara is the subject of the first Purana or sacred poem, consisting of 14,000 stanzas, and is concisely told in the eighth book of the Sri Bhagavata, or life of Krishna.—*Sir W. Jones' Asiatic Researches*.

MATSYA, a country which produced fish, sometimes said to be Bengal, sometimes Gujerat. The Hindu races who worship, in addition to the works of their own hands, so many varied products, and so large a number of mammals and reptiles, do not, seemingly, worship fish. A tank or pond with all its contents may, however, with the Hindus be devoted to a deity; and Colonel Tod mentions that, when one day he had thrown his net into a lake which abounded with a variety of fish, his pastime was interrupted by a message from the regent, Zalim Singh, to tell Captain Tod that Kotah and all around it were at his disposal, but these fish belong to Kaniya. On which Colonel Tod immediately desisted, and the fish were returned to the safeguard of the deity. In such a sacred tank, fish will feed from the hand; and in the Mahanadi, where it is three miles broad, he tells us fish will follow for miles for a little burnt rice.—*Tod's Travels*, p. 9.

MATSYA PURANA, a religious book of the Hindus, narrated to Menu by Vishnu in the form of a fish. Many of its chapters are the same as parts of the Vishnu Purana, Padma Purana.—*D.*

MATTAN. HIND. The ground, field, or plain-coloured centre of a shawl.

MATURA, on the east coast of Ceylon, in lat. 5° 58' N., and long. 80° 37' E., is a considerable town with a fort. Many gems have been from ancient times exported from Ceylon, where the ruby, amethyst, topaz, sapphire, spinel, chrysoberyl, corundum, and cinnamon stone are found in great abundance, but not emeralds. The sapphires, which are red, purple, yellow, blue, white, and star-stone, are met with at Matura and Saffragam, and rubies and sapphires at Badulla and Saffragam. The white tourmaline or Maturese diamond, called in Singhalese Suda Turemali, is a topaz of a pale-yellow colour. The zircon family is richer in Ceylon than in any other part

of the world. It is found in the districts of Matura and Saffragam, and is most abundant in the former. Matura-diamond is the name applied to its finest varieties by the dealers in gems. Besides the two well-established species, common zircon and hyacinth, there is a third, massive, opaque, and uncrystallized, and of a dark-brown colour. Specimens of it from Saffragam weigh two or three ounces. The yellow varieties are sold by the natives as a peculiar kind of topaz, the green as tourmalines, the hyacinth red as inferior rubies, and the very light grey as imperfect diamonds. All the varieties are found in the beds of rivers, or in alluvial ground, which, both in Saffragam and Matura, is of the same kind.—*Horsburgh; Thunberg's Travels*, iv. p. 219.

MAT-WAN-LIN, a Chinese editor of a Chinese cyclopædia. It gives an account of India, translated from the Wan-heen-t-hung-Kaow, or deep researches into ancient documents.

MATY, in the Madras Presidency, a house servant who cleans up, supposed to be from the English mate, or from the Malealam Metti, an inferior servant, an under-servant who cleans dishes, shoes, etc.

MAULA. ARAB. A Muhammadan judge, a learned or venerable person. Maulana, a person of learning or respectability, a doctor, a teacher. In the Mahratta countries, a Muhammadan school-master. Maulavi, Maulvi, or Mulla, pronounced Mulvi, is a learned man of the Muhammadans; a teacher of, or learned in, Arabic; an expounder of Muhammadan law, a doctor of divinity, a teacher of the Muhammadan religion. Maulavi, Alim (pl. Ulama), and Mujtahid (pl. Mujtahidin) are the three grades of doctors of divinity.

MAULMAIN or Moulmein, town and headquarters of Amherst district, and of the Tenasserim division, British Burma, situated on the left bank of the Salwin, at its junction with the Gwyne and Attaran rivers, in lat. 16° 30' N., and long. 97° 38' E. The town is built around the base of a hill, and the houses of Europeans are on the slopes and summits of the hill. From the top of the hill, on which are several Buddhist pagodas, the eye ranges over a grand prospect,—the Gwyne, the Salwin, and the Maulmain river lie below. The Maulmain river has a ridge of rock running across its mouth, endangering navigation.

MAULOOD. ARAB. Poetry chanted before the bier of a deceased person when carried out.

MAULUDI, ARAB., HIND., applied to a foreign race born in India.

MAUND or Mān, a measure of weight of India, which varies from 25 to 82½ lbs., according to the substance weighed. The Bengal bazar maund is 82 lbs. 2 oz. avoirdupois. Goods weighed or passed by viss are converted at the rate of 365 lbs. avoirdupois per 100 viss. Grain shippers declare their own weight. At Isfahan, the Shahi or royal man is always used, instead of the Tabreez man employed at Shiraz. One Shahi man is equal to two Tabreez man. A khurwar or ass's load is estimated at 100 Tabreez man, or about 725 lbs. English.

In the Persian Gulf at Muscat, the maund is 25 lbs.; at Abu Shahr, 7½ lbs.; and a Hashim maund, 116 lbs. Every town has a different maund.—*Fraser's Khorasan*, p. 369.

MAUNDRELL, HENRY, travelled in Syria

and the country of the Euphrates. In A.D. 1699 he visited Kala Jerablus, the ancient Carchemish.

MAUNI, the last day of the month of Phalgun, when bathing in silence is to be practised by Hindus.

Mauni, a Hindu ascetic who has taken a vow of perpetual silence, like Paul the silentary. They are also called Mauni-dasi. They are devotees under a vow of silence, generally for a term of years, and there are said to be many in Benares. They are regarded as possessing extreme sanctity, and are even worshipped by other Hindus.—*Sherring's Tribes; Wilson.*

MAURICE, THOMAS, author of *Ancient History of Hindustan, its Arts and Sciences*, London 1795-98; *Modern History of Hindustan*, London 1802; on the Ruins of Babylon, 1826; *Ancient Egyptian Grandeur*, 1818.

MAURI CONWAI, a great reservoir in Mysore.

MAURITIA CARANA, the Carana palm. The leaves are used as house-thatch. *Mauritia flexuosa* is the most largely distributed palm throughout the basins of the Amazon and Orinoco, or from the Andes of Peru and New Grenada to the shores of the Atlantic. The earliest American voyagers and missionaries noted its abundance in the delta of the Orinoco, and how, in the season of inundations, the natives dwelt on stages supported by the growing trunks of the *Mauritia*. The edible part of the fruit is the rather thin orange pulp, which easily separates from the endocarp when ripe, but is clad with cartilaginous scales that it requires practice to get rid of. It might be introduced into India.—*Dr. Spruce; Seeman.*

MAURITIUS, or Isle of France, a mountainous island about 300 miles west of Rodrigues. Its S.W. point is in lat. 20° 28' S., and long. 57° 17' 30" E., and the N.E. point in lat. 19° 53' S., and long. 57° 36' E. It was discovered by the Portuguese Mascarrhenas in the early part of the 16th century, and has been in their possession, in that of Spain, and of Belgium, France, 1721, and Britain in 1810. Coral reefs nearly encircle the island. The lighthouse on Canonier Point is in lat. 20° 0' 35" S., and long. 57° 35' 24" E. Pouce, the highest mountain, is 2847 feet, and Pieter Botte, 2580 feet.—*Findlay.*

MAURYA, a dynasty of Magadha, founded by Chandragupta, the Sandracottus of the Greeks. Chandragupta was the illegitimate son of the last Nanda by the beautiful but low caste Mura, from whom he obtained the designation of Maurya. In the *Mudra Rakshasa*, a Sanskrit drama detailing his elevation, Chandragupta is frequently named Vriabala, a term said to be equivalent to Sudra; and as Nanda himself was the son of a Sudra woman, there can be little doubt that the celebrated Maurya family were of Sudra extraction. They ruled from Palibothra (Pataliputra), the modern Patna. Chandragupta's grandson, the great Asoka, raised this dynasty to the highest fame by his conversion to the Buddhist faith, and his eager promulgation of it. It was the first dynasty in historical times who seem to have united all India into one great kingdom.

The *Mudra Rakshasa*, a Hindu drama, gives the history of the causes of the revolution which placed the Maurya dynasty on the throne. The Maurya dynasty lasted 180 years.

Chandragupta,	B.C. 325	Sangata,	B.C. 220 ?
Bimbisara or Bindu Sara,	301	Indra Palita,	212
Asoka,	276	Somasarman,	210
Suyasa,	240	Sasadharman,	203
Dasaratha,	230 ?	Vrihadratha,	195

The names of the sovereigns vary in the several Puranas. In the Vishnu Purana they are given as Chandragupta, Bindu Sara, Asoka, Vardhana, Su-yasas, Dasaratha, Sangata, Salisuka, Somasarman, Sasadharman, and Brihadratha.

MAUSOLEUM. Most of the Muhammadan rulers of India bury their great men under a mausoleum. The mausoleum tomb of Humayun, with its white marble dome, is a conspicuous object for miles around. It cost 15 lakhs of rupees, and was erected by his widow Hamida Banu Begum, who is also interred near. There are magnificent structures over members of the Kutub Shahi dynasty at Golconda, and over the Adal Shahi at Gogi and Bijapur; and large tombs at Ahmadnaggur over the Nizam Shahi, and over the Bahmani at Beder and Kulburga. That over Ibrahim Adal Shah is very grand, and those at Gogi are in excellent preservation.

MAUZA. ARAB., HIND., PERS. A village, a parcel or parcels of land, a cluster or clusters of habitations, a settlement, an estate.

MAWA. HIND. A glutinous preparation of wheat, used in glazing pottery.

MAWAL. MAHR. Fertile valleys of Maharashtra, the mountain valleys of the Syhadri range.—*Wils. Gloss.*

MAWAIL, a Bedouin tribe between Aleppo and Damascus.

MAWAR-u-NAHR is the geographical term in use by Arab geographers to designate the vast plains extending westward from the Pamir steppe, watered by the Oxus and Jaxartes (the Amu Darya and Syr Darya). It is the Scythia intra-Imaum of ancient classical geography, and the Transoxiana of modern geographers. Beyond this region Asia (Scythia extra-Imaum) was occupied by the races known as Turks and Tartars. Mawar-u-Nahr is bounded on the north by the Jaxartes (Syr Darya), on the west by the Caspian Sea, and on the east by Mount Imaus. Large portions of it are desert, but others are susceptible of high cultivation. Most of the fixed inhabitants are Persians, and all the moving shepherds Uzbak.

MAYA, an ancient author on Hindu architecture. He was a Danava, and built the palace of Yudishthra.

MAYA. The Vedantist school of Hindu philosophy affirm that matter exists not independent of perception, and that substances are indebted for their seeming reality to the ideas of the mind. All that we see is Maya, deception and illusion. There are no two things in existence, there is but one in all. There is no second, no matter, there is spirit alone. The world is not God, but there is nothing but God in the world. In this view, Maya morally means nothing more than the nothingness of this world; poetically, the inability of man to appreciate the world in which he lives, and, philosophically, it is identical with the idealism of Bentley. Brahma says, in this life, man, as in a dream, finds delight in eating, drinking, and other enjoyments, but as soon as he awakes, they yield no longer pleasure, for the joys and pleasures of his life are as unreal

as dreams. By devout abstraction (that is, by meditating on God) man awakes to a knowledge of divine truths, and finds his former enjoyments nothing but illusion. Thus, a supreme eternal Spirit, the Creator of all, pervades all, and will finally destroy all; in fine, all things are Maya which do not proceed from the light of divine knowledge. By the Vaishnava, Lakshmi is called Maya or Ada Maya, by the Saiva it is Durga.

MAYA AH. BURM. A tree said to grow in the celestial regions, and to be a favourite food of the nat.

May-byoung, a hard, tough, knotty wood, which the Tavoyers select for anchors to their large boats, wooden anchors loaded with stones constituting the greater part in use.

May-gyee, tamarind tree.

May-klin, a timber used for rudders and anchors.

May-maka, a timber used in ship-building.

May-rang, a timber said to be very durable.

May-to-bek, in Tavoy, a wood used for the bottoms of ships; preferred to teak.

May-yam, a Tavoy timber; an indestructible, strong, heavy, dark-red wood.

Maza-neng, in Amherst, a close-grained wood, nearly allied to teak. It is used for house-posts, carts, boats, paddles, oars, etc.

MAYA SHUTR ARABI. ARAB.? Rennet from stomach of camels. The genuine article is brought from Arabia, and sells at about 4 oz. for 8 rupees.

MAYFLOWER, a ship sent from Gombroon to Masulipatam by the English East India Company about 6th May 1659. It has been supposed to be the same ship which landed with the Pilgrim Fathers from Plymouth, in America, 22d December 1620.

MAY-KUANG, a deep, broad river of Cambodia. It takes its rise in Tibet, and flows through Laos, Cambodia, and Cochin-China, forming a delta at its entering the China Sea by numerous channels.

MAYO, EARL OF, K.P., was Viceroy and Governor-General of India from the 12th January 1869 till his death at Port Blair, where he was assassinated, on the 8th February 1872, by a Pathan convict. The two great administrative measures of his rule were the institution of a Department of Agriculture, Revenue, and Commerce, and a Statistical Survey of India. A Memorial Hall was erected to his memory at Allahabad;—'Dedicated to the memory of Richard Southwell Bourke, Earl of Mayo, K.P., M.A., P.C., LL.D., some time Viceroy and Governor-General of British India, who, after three years of beneficent rule, during which he inaugurated many wise measures, and won the regard of all classes, fell beneath the hand of an assassin at Port Blair, Andaman Islands, on the 8th of February 1872.' This tablet is set in the centre of a frame, of which the late Earl's coat of arms, with the motto, 'A cruce salus,' artistically done in marble, in relief, forms a conspicuous feature. He did much to develop the extensive salt mines in Jhelum district, Panjab; lat. 32° 39' 30" N., long. 73° 3' E. The mineral occurs in the chain of hills known as the Salt Range, the beds cropping out from the red marls and sandstones of the Devonian group, on the southern escarpment of the hills. They run throughout the whole length of the system in layers of considerable thickness, some-

times standing out in the form of solid salt cliffs, as at Kalabagh on the Indus.—*Imp. Gaz.*

MA YO. CHIN. Local anæsthetics. The flowers of a species of Cannabis, called Ho-ma, and those of the Datura (Man-tou-lo) were formerly in China infused in wine and drunk, as a stupefying medicine preparatory to acupuncture, the opening of abscesses, or the application of the actual cautery. A solanaceous plant called Yah-puh-lu, probably identical with the Atropa mandragora, is said to be capable of causing a trance of three days' duration. Aconite root, the tubers of Pinellia tuberifera, long pepper, the root of Heterotropia asaroides, the flowers of Hyosciamus, Azalea, Andromeda, and Rhododendron, the tubers of Arisaema and of Arum pentaphyllum, a gum-resin called Mwan-hiang, are all reputed anæsthetics. Robbers use the last substance to lull their victims to sleep.—*Smith.*

MAY-POLE. These are erected at the entrance of every Hindu village in the happy vassant or spring time, whose concluding festival is the Holi Saturnalia. Every pole has a bundle of hay or straw tied at the top, and some have a cross stick like arms and a flag flying; but in many parts of the Pat'har, the more symbolic plough is substituted, dedicated to the goddess of fruition, and serving the double purpose of a spring-pole, and frightening the deer from nibbling the young corn.—*Tod's Rajasthan*, ii. p. 662.

MAYT. ARAB. Dead, a dead body. Bahr-ul-Mayt, the Dead Sea, or Lake Asphaltites.—*Catagogo.*

MAYURU-PINCH'HA. SANSK. The peacock fan, which formed one of the insignia of royalty of the Chalukya dynasty when ruling at Kalian.

MAYWAY - ka - TABAK. HINDI. The fairy fruit tray.

MAZAFFAR JUNG, the title of the favourite grandson of Nizam-ul-Mulk, his name being Hadayat Mohi-ud-Din. After the death of Nizam-ul-Mulk, he strove to attain the sovereignty of the Dekhan against his uncle Nasir Jung, and entered into agreements with Chanda Sahib and the French. He was present with Chanda Sahib at the battle of Ambur, where Anwar-ud-Din fell. He gave Masulipatam to Dupleix, but was seized and imprisoned by Nasir Jung. His uncle Nasir Jung was assassinated by a conspiracy, and ultimately, after a varying contest, Mazaffar Jung fell at Cuddapah, during the revolt of the Pathan chiefs, by the arm of the nawab of Kurnool.—*Orme.*

MAZAGON, northern suburb of Bombay city, noteworthy as containing the docks and workshops of the Peninsular and Oriental Steam Navigation Company. Lat. 18° 56' N., long. 72° 53' E.—*Imp. Gaz.* vi.

MAZANDERAN, a province of Persia, in lat. 35° 45' to 57° N., and long. 50° 15' to 54° E., lying between the S. coast of the Caspian and the Elburz mountains. The inhabitants are partly Lek and partly Turk, in a number of separate tribes and clans. The khalif Harun-u-Rashid was interred here. It was for some years the residence of the court of Nadir Shah. It is very mountainous and rich, and the mountains are, with the exception of those in Georgia, the only ones in Persia covered with forests, principally composed of the Azad-darakht, admirably adapted for ship-building. This fact made Peter

the Great and Catherine II. so anxious to obtain possession of Mazanderan and the neighbouring province of Ghilan; and indeed they were ceded to Peter by treaty at one moment, although he was afterwards obliged to relinquish them. Down to the middle of the 19th century, the Russians never ceased their efforts to gain even a small footing in this neighbourhood; and in 1881 Mazanderan was ceded to them, and they succeeded in obtaining and fortifying the small island of Ashounada, close to the shore, in the neighbourhood of Asterabad. Mazanderan is said to have been conquered in pre-historic times by Rustum; who is said to have killed there a number of elephants, an animal now unknown in Persia. Mazanderan and Ghilan may be divided into two distinct climates, the mountainous region, and the flat country along the shore of the Caspian Sea. The small province of Asterabad is sometimes included in Mazanderan, which it resembles in appearance, climate, and productions. This is the ancient Hyrcania, and the paternal estate of the king of Persia, as chief of the Kajar tribe, who have entire possession of the province. It extends to the east as far as long. 58° E., and is divided from Dahestan by the river Ashor. Asterabad is situated near the mouth of the river Easter, on a bay of the Caspian Sea. From Asterabad it is eighteen days' journey to Herat, and from thence, passing through the hilly country of the Hazara people, you arrive at Kabul on the eleventh.—*Malcolm's Persia*, ii. p. 126; *Mohun Lal's Travels*, p. 320; *Kinnet's Memoir*, p. 166; *Ferrier's Journey*, p. 70; *MacGregor*, iv. pp. 318, 327.

MAZARI, a tribe still to a great extent predatory. They continually plundered the river boats, and made frequent incursions into the Bahawulpur territory on the left bank of the Indus. They were often at war with the Bugti and Mari, and did not hesitate to attack the Dumbki and Jakrani at Pulaji, Chatar, etc., from whom they occasionally succeeded in driving off much cattle. The Mazari were the most expert cattle-stealers in the border country, and have the reputation of being brave warriors.

MAZAR-i-SHARIF, a town said to be the burial-place of Ali, and pilgrims visit the tomb. The legend the Uzbaks tell is that when Ali fell his body was placed upon a milk-white she-camel, which was then let loose to go wherever she liked. They had decided to bury the body wherever she first stopped. Far and wide she wandered, all over the world; at last, coming to Mazar-i-Sharif, she stopped and died, and on that same spot Ali was buried by his followers. The Persians dispute the legend, and firmly believe that Ali is buried at Kerbala.

MAZDAC, a religious enthusiast of Istakhr who flourished in the reign of the Sassanian king Kobad, in the 6th century of the Christian era. He set up the doctrine of the community of women.

MAZHAB. ARAB. Religion. See Din.

MAZHABI. The Rungret'ha Sikhs are sometimes styled Mazhabi, or of the religion. The name may also be applied from the circumstance that the converts from Islam are so called, and that many sweepers throughout India have become Muhammadans. Churas, a man of the sweeper caste, brought away the remains of Togh

Bahadur from Dehli. Many of that despised, though not oppressed, race have adopted the Sikh faith in the Panjab, and they are commonly known as Rungret'ha Sikhs. Shiah Muhammadans are also called Mazhabi.

MAZINAH, a site on a minar of a mosque, from which the Muazzan gives forth the Azan or summons to prayers.

MAZRA or Majra. HIND. A tilled field ready for sowing; also a hamlet.

MEAD or Metheglin.

Meede, Meedrank, . . . DUT.	Idromele, IT.
Hydromel, FR.	López, RUS.
Meht, Meth, GER.	

An intoxicating drink made of honey. See Madhu.

MEADOW FOXTAIL GRASS, *Alopecurus pratensis*, W., grows in Sind. It is much relished by cattle. Meadow grass, in Tenasserim, has one or two representatives among the species of Poa.—*J. A. Murray; Mason*.

MEADOW SAFFRON, *Colchicum autumnale*. Sorinjan, ARAB. A bulbous plant, the roots and seeds of which are employed in medicine.—*Hogg*, p. 737.

MEAL, Farina.

Mil, DUT.	Tapung, Pulus, . . . MAL.
Farine, FR., IT.	Lumat, "
Mehl, GER.	Muka, RUS.

The edible parts of wheat, oats, rye, barley, and pulse of different kinds, ground into a coarse flour.—*Faulkner; McCulloch*.

MEALY BUG or White Bug of Ceylon coffee planters is the *Pseudococcus adonidum*. The male insect is of a dirty brownish colour, and slightly hairy. It is very minute (very much smaller than the females; only about half a line long), and resembles certain small Ephemeridae or May flies. The female is oval, brownish-purple, covered with a white mealy powder, which forms a stiff fringe at the margin and at the extremity of the abdomen two setae. The larvæ and pupæ are active and move about. The insects in all stages of development are found in Ceylon all the year round, chiefly in dry and hot localities, on the branches of trees, and on the roots to one foot under ground. Mr. Nietner says it is identical with the species naturalized in the conservatories of Europe. It is preyed upon by the *Scymnus rotundatus*, a minute beetle of the lady-bird tribe, of the size of a pin's head, black and pubescent; also the yellow-coloured and common Encyrtus Nietneri and the black-coloured scarce *Chartococcus musciformis*, two minute Hymenoptera (wasps), only $\frac{1}{4}$ " long, and the minute whitish mite *Acarus translucens*. Of the members of this family of insects, the Coccidæ, some, as the cochineal and lac insects, are of great economical importance; but others, as the sugarcane blight of the Mauritius, the aspidiotus, and the coffee bug, are excessively baneful to the gardener and agriculturist.—*Nietner*.

MEANGIS or Meangus, a group of islands on the S. coast of Mindanao, in about lat. 5° N., and long. 127° 45' E. There are three islands of moderate size, with some smaller ones adjoining; they lie about 36 or 42 miles N.E. of the Talour Islands. Sangir and the numerous islands of this group, in the Celebes, occupy a superficies of 13 square leagues; the Tolaut and the Meangis Islands united are 18 square leagues. These

archipelagoes, formerly subject to the authority of the sultans of Ternate, now make part of the larger Dutch Residency of Menado. Several extinct volcanoes, and some still in full action, are found in the Sangir group; the devastations which they commit from time to time have often been fatal to the inhabitants. The eruption of Duwana, in 1808, completely annihilated the village of Tagalando, destroyed all the surrounding forests, and suddenly deprived the inhabitants of all means of livelihood by the destruction of their fields. The Gunong Api causes numerous ravages in the island of Siau; its peak, 6000 feet above the level of the sea, forms the culminating point of this group. Gunong Api covers with its base all the northern part of Sangir-besar. In 1812 torrents of lava from it destroyed the extensive forests of cocoanut trees with which this part of the island was covered, and caused the death of many of the inhabitants. These islands furnish more than 25 kinds of wood suited for building and furniture. Two harbours, sheltered from all winds, exist in the larger Sangir, one in the Bay of Taruna, the other, called Midelu, on the eastern side.—*Journ. Ind. Arch.*, 1850, p. 764; *Horsburgh*.

MEAOU. CHIN. A funeral temple.

MEASLES, in pork, is a tainted form caused by the introduction of the eggs of the *Tænia solium* into the intestines. See *Cysticercus*.

MEASURES. See *Weights and Measures*.

MECCA, Medina, Aden, Sana the capital of Yemen, and Daraieh, are the chief towns of Arabia. Mecca is a holy city of the Muhammadans. It is situated in an arid and barren tract of country, a full day's journey from the seaport town of Jedda. In the summer months the heat is excessive. There are several structures in it of historical interest, one of them, the Ka'ba, so called from its form being nearly a cube (kaab). It is a massive structure of grey Mecca stone, nearly 44 feet long by 35 feet wide, and from 35 to 40 feet high, with a flat roof, supported by two columns, between which are hundreds of lamps hung in festoons. The Ka'ba is encircled by an immense curtain (kessoua) of rich black stuff, on which appears in large Arabic characters the essence of the Muhammadan creed, 'There is no other deity but God, and Mahomed is the prophet of God,' also some prayers worked in gold thread. Beyond these are the mainbar (pulpit), Al Bah-us-Salam, and the buildings enclosing the well of Zamzam. Serving as an upper chamber to this structure is the Makam-us-Shafiah, and opposite to the remaining three sides of the Ka'ba are the makams of the other orthodox sects, viz. the Hanefi, the Hanbali, and Maleki. There are arcades around the square in which the Ka'ba stands. Built into the Ka'ba wall is the black stone, Hajar-us-Siah, said to have been brought by the angel Gabriel in order to the construction of that edifice. The stone, according to the legend, was at first of a bright white colour, but is absolutely black or deep reddish-brown. This stone every Muhammadan pilgrim must kiss, or at least touch, every time he goes round the Ka'ba. Neither the stone of Abraham nor that of Ishmael receives the same honours; pilgrims are not obliged either to visit or to kiss them. The Arabs venerate the Ka'ba as having been built by Abraham, and having been his house of prayer. Within the same enclosure

is the well of Zamzam. Hagar, when banished by her master, set little Ishmael down here while she should find some water to quench his thirst. Another ornament of the Ka'ba is a row of metal pillars surrounding it. The black stone has suffered from the iconoclastic principle of Muhammadanism, having once narrowly escaped destruction by order of the ruler of Egypt. In these days the metal rim serves as a protection as well as an ornament. Its height from the ground is 4 feet 9 inches; Ali Bey places it 42 inches above the pavement.

Mecca territory is reputed sacred to a certain distance round, which is indicated by marks set for this purpose. Every person, it is assumed, should perform the pilgrimage to Mecca who has a beast to ride upon, and who can supply himself with provisions for the journey. Ul-Shaffei says, Those who have money, if they cannot go, should perform this journey by deputy. Malik thinks all who have strength sufficient should go to Mecca; but Ul-Hanifa deems both money and health of body requisite before this duty can be deemed obligatory. During the pilgrimage, the city becomes an immense fair, in which products of Arabia are exchanged for the richest and most valuable commodities of Persia, India, and Europe, to the amount of several millions of dollars. There are few khans, baths, serais, or even mosques, and there are few cisterns for collecting rain; the well-water is brackish, and during the pilgrimage sweet water becomes an absolute scarcity. At other times the city is chiefly supplied by a conduit coming from the vicinity of Arafat, a distance of six hours' journey. This extensive work was constructed by Zobeida, wife of Harun-ur-Rashid. Year after year thousands of unfortunate and improvident pilgrims crowd these places, and are left to look after themselves as they please, without the slightest regard being had to sanitation. In 1881 cholera broke out with great severity at Mecca. On the day of pilgrimage the preacher sits on a camel, because the prophet, during his last pilgrimage, being sick, made the tour of the Ka'ba on his camel, and remained on it while he preached. Mount Arafat (recognition) is so called because Abraham the patriarch, after the vision in which he was commanded to sacrifice his son Ishmael, wandered about for a day in perplexity as to whether the order came from God. On the second day, being at Arafat, he had a second vision, and he then recognised, i.e. arafa, its truth. In Mecca immorality is conspicuous, and the pilgrim may often apply to himself the words of Umr-ibn-Ali Rabiha on his return from Mecca—'I set out in hope of lightening the burden of my sins, and returned bringing with me a fresh load of transgressions.'

The city is chiefly situated in the wadi of the same name, which is also called Mekka, a narrow sandy valley which runs north and south, but inclines towards the N.W. at the latter extremity of the town. The city, with the exception of three castellated buildings and a few watch-towers, is defenceless. Around are several sandy wadi, which are separated from the desert by a low barren chain of hills from 200 to 500 feet in height, the most elevated part of which is on the eastern side. Mecca houses are built of stone, usually three storeys high, with terraced roofs

surrounded by open parapet walls, and having the unusual addition of numerous windows, shaded by lightly-formed reed blinds; the aspect is more European than oriental, especially as the streets are very wide, in order to afford the necessary space for an addition of about 50,000 to 100,000 to the permanent inhabitants, who are between 18,000 and 30,000 souls. Ali Bey (A.D. 1807) calculates 83,000 pilgrims; Burckhardt (1814), 70,000. Burton reduced it, in 1853, to 50,000. In A.D. 1854, owing to political causes, it fell to about 25,000. Of these at least 10,000 are Meccans, as every one that can leave the city does so at pilgrimage time. A visit to the Masjid-un-Nabawi, and the holy spots within it, is technically called Ziyarat or Visitation. The visitor, who approaches the sanctuary as a matter of religious ceremony, is called Zair, his conductor Muzawwir, whereas the pilgrim at Mecca becomes a Haji. The Masjid-un-Nabawi, or the Prophet's Mosque, is one of the Haramain, or the Two Sanctuaries of El Islam, and is the second of their three most venerable places of worship in the world, the other two being the Masjid-ul-Haram in the centre of the town of Mecca (Mecca connected with Abraham) and the Masjid-ul-Aksa of Jerusalem (the peculiar place of Solomon). Muhammadans have the largest cathedral in the world, St. Sophia's at Constantinople. Next to this ranks St. Peter's at Rome; thirdly the Jamma Masjid, or Cathedral of the old Muhammadan city of Bijapur in India; the fourth is St. Paul's, London. It is to Walid the First (A.H. 88) that the Saracenic mosque-architecture mainly owes its present form. He had every advantage of borrowing from Christian, Persian, and even Indian art. From the first he took the dome, from the second the cloister,—it may have been naturalized in Arabia before his time,—and possibly from the third the minaret and the prayer-niche. The last appears to be a peculiarly Hindu feature in sacred buildings, intended to contain the idol, and to support the lamps, flowers, and other offerings placed before it. Mecca has as many as 29 designations, such as Om-el-Kora (Mother of Towns), Balad-el-Amin (Region of the Faithful).

Six Christians of Europe are known to have visited Mecca. Lodovica Bartema, a gentleman of Rome, visited Mecca A.D. 1503; Joseph Pitts, of Exeter, A.D. 1678; John Lewis Burckhardt, A.D. 1814; Lieutenant Richard Burton, of the Bombay Army, A.D. 1853; Herman Bicknell, the translator of Hafiz; and T. F. Keane, who resided there six months, and afterwards went on to Medina, and published his pilgrimages. It reads like one of those stories which are to be found in the pages of juvenile magazines. During the pilgrim season 1877-1878, the author, apparently a light-hearted young sailor, found himself at Jedda, and conceived the audacious idea of making a pilgrimage to the holy shrine. Unlike his great predecessors, Burckhardt and Richard Burton, he did not prepare himself for the task by long study and experience of eastern tongues and manners; still less did he take the preliminary precautions adopted by Herman Bicknell, who qualified as a Muslim at Cairo before setting out for Mecca. On the contrary, so slight was his acquaintance with oriental languages, that he seems at first to have adopted the name of Abdur Muhammad, a title that is not only impossible, grammatically and philologically,

but offensive to Muslim ears. A kind hint from a travelling companion, a young Indian nobleman to whose suite he attached himself, induced him to exchange his preposterous appellation for the more reasonable one of Muhammad Amin.

MECH and Kachari, according to Colonel Dalton, are considered to be the same people, or at least of common origin. Buchanan calls them a tribe of Kamrup, who appeared to have undergone great changes. The large tract of country called Mechpara, in the Gawalpara district, no doubt took its name from them; and its proprietor, Colonel Dalton says, is a Mech; but he and most of his people repudiate this origin, and call themselves Rajbansi. The Mech are to be found in the Bhutan Dwar, and they extend from thence in a westerly direction into the Nepal Terai, as far as the Konki river, subject respectively to the Nepalese, Sikkim, Bhutan, and British Governments. Their habits and customs are found much modified by the people with whom they come in contact, viz. the Pani Kocchi, Rajbansi, Dhimal, Thawa, and Garo on one side, and the Limbu, Keranti, Lepcha, Murmi, and Bhutia on the other. They are fairer than the Kocchi, and have more markedly the Mongolian characteristics, but accompanied by a softness of outline which distinguishes them readily from the Mongoloid Lepcha, Limbu, and Bhutia. They are said also to resemble the Mug and Burmese, and to be, like them and like the Khasiya, greatly addicted to drinking spirits, smoking, and eating the betel leaf. It is said that when living beyond the pale of Hindu influence they are as omnivorous a race as any in the world, but they will not eat the flesh of the elephant. They are very migratory, continually shifting their cultivation and abodes that they may have the full benefit of the virgin forests to which they cling. It is their love for such forests that retains them under Nepalese or Bhutan rule. The Mechs are possessed of a physical constitution that enables them to live and flourish all the year through in a malarious tract which is absolutely fatal to strangers, and their rude methods of agriculture are gradually rendering the country habitable for successors of a superior race.

The Rajbansi tribe is identical with the Kocchi of Assam and of Koch-Bihar.

The Mech language is not written, and is apparently of Bengali origin. They never live at elevations higher than from 800 to 1000 feet above the sea, and prefer cultivation in the clearances of the Terai. The Bhutan Mech are a quiet, inoffensive, weak race; they are precisely the same class as the men inhabiting the British Terai; like them they appear to enjoy perfect immunity from the ill effects of malaria. They are, however, a finer and less sickly and sallow-looking set than the Mech of the Darjiling Terai, probably because the Bhutan Terai is more healthy and drier than the British Terai. They worship the Sij (Euphorbia) as the emblem of the supreme deity, like the Kachari, and they call themselves Bodo or Boro, which means a great people, and Rangta, a heavenly, and other designations in which the Kachari rejoice.

In the census report of 1881 the Rajbansi are returned as 106,376; the Kachari, 281,611; and the Kocchi, 1,878,804. The numbers of Bodo or Boro, Bhutia, Khasiya, Lepcha, Limbu, Mech, Mug, and Pani Kocchi, and Rangta are not

given.—*Mr. (Sir) George Campbell*, p. 58; *Dalton, Ethnol. of Bengal*; *Imperial Gazetteer*; *Census Report*.

MECONOPSIS ACULEATA, Prickly poppy. Guddikum, Gudia, HIND. | Kanta, . . . PANJAB.

Meconopsis is from *μυζω*, a poppy, and *οψις*, a resemblance, a genus of plants belonging to the natural order *Papaveraceæ*, and formerly referred to *Papaver*. This species is found at Kaghan, in the Sulej valley, between Rampur and Sungnam, at an elevation of 10,000 to 12,000 feet; also in Nepal, Chur, Kedarkanta, and Pir Panjal. Flowers blue-purple, showy. The roots are reputed to be exceedingly narcotic, but an alcoholic extract of one drachm of the root given to a small dog produced no perceptible effect. *Meconopsis Nepalensis* is a Nepal plant, and is described as being extremely poisonous, especially its roots. *Meconopsis Wallichii*, *Hooker*, is the blue poppy of Mount Tonglo, on the Sikkim Himalaya at 12,000 feet.—*Eng. Cyc.*; *O'Sh.*; *Cleghorn*; *Royle's Him.*

MED or **Medi**, a Scythic tribe that colonized the Panjab. General Cunningham says the Med or Mand are almost certainly the representatives of the Mandrieni, who lived near the Mandrus river, to the south of the Oxus; and as their name is found in the Panjab from the beginning of the Christian era downwards, he concludes that they must have accompanied their neighbours the Jatii or Jat on their forced migrations to Ariana and India. In the classical writings the name is found as *Medi* and *Manduevi*, and in the Muhammadan writers as *Med* and *Mand*. The tribe may have been transplanted to the banks of the Indus, when the Medo-Persian empire extended that far east; or they may have been pressed south-easterly by intruding Scythians, or have left during the persecution of the Magi, who constituted one of the six tribes of *Modes*. Admitting that the *Jartaka* of the *Mahabharata* and the *Puranas* represent the Jat, the *Madra* also mentioned there must be regarded as representing the Med, confirming thereby the antiquity and synchronisms of these two races on the banks of the Indus. The Med devoted themselves to a pastoral life, repeatedly invaded the territories of the Jat, putting them to great distress, and compelling them to cross the river; but subsequently the Jat, being accustomed to the use of boats, recrossed and defeated the Med, whose country they plundered. They made up their differences, and asked *Daryôdhana*, king of *Hastinapur*, to send them a king, and he sent his sister *Dassal* (*Dahsalu*), wife of *Jayadratha*, who made *Askalandha* her capital, perhaps the *Uch* of later times. After a reign of more than 20 years, *Jayadratha* was killed on the fatal field of *Thanesar*, and his widow burned herself on his funeral pile. On the same field the *Bharata* dynasty was extinguished. The earliest historical notice of the Med race is by *Virgil*, who calls the *Jhelum*, *Medus Hydaspes*. This epithet is explained by a statement of *Vibius Sequester*, which makes the *Hydaspes* flow past the city of *Media*. This is the same place as *Ptolemy's Euthymedia*, which was either on or near the same river, and above *Bukephala*. Also in the *Peutingarian tables*, which are not later than A.D. 250, the country on the *Hydaspes* is called *Media*. From this evidence, the *Medi* or *Med* were in the Panjab as early at least as the

time of *Virgil*, or B.C. 40–30. Shortly thereafter, about B.C. 30–20, the Med seem to have been forced southwards into Sind, where the Jat long resented their intrusion. The Erythræan *Periplus* mentions that about A.D. 100, the rulers of *Minnegara* were rival Parthians, who were mutually expelling each other. When the Muhammadans arrived in Sind, they found the Med or Mand firmly established there along with their former rivals the Jat. *Ibn Haukal* describes the Mand of his time, about A.D. 977, as occupying the banks of the Indus from Multan to the sea, and to the desert between *Makran* and *Fambal*. *Masudi*, who visited India A.D. 915–16, calls them residing in Sind. During the period of the Arab occupation of Sind, *Muhammad Kasim* is represented as making peace with the Med of *Saurashtra*, seafarers and pirates, with whom the men of *Basra* were then at war. In the Muhammadan period, *Amran*, the Barmekide governor of Sind, directed an expedition against the Med, advancing from several directions, and reduced them to great extremities. Nevertheless, in the time of *Masudi*, the inhabitants of *Mansura* were obliged continually to protect themselves against Med aggressions. They have remained in this locality ever since, for there can be no doubt but that they are now represented by the *Mer* of the *Aravalli* range to the east of the Indus, of *Kattyawar* to the south, and of *Baluchistan* to the west. The name of *Mer* or *Mand* is still found in many parts of the Panjab, as in *Meror* of the *Bari* and *Rechna* Doabs, in *Mera*, *Mandra*, and *Mandanpur* of the *Sind-Sagar* Doab, and in *Mandali* of *Multan*, offering strong evidence that the Med or Mer were the first Indo-Scythic conquerors of, and once the dominant race in, the Panjab. *Meris* or *Mœris* was the king of *Pattala* who, on the approach of *Alexander*, abandoned his capital and fled to the mountains; he was possibly a Mer. The Mer of the *Aravalli* are but little advanced beyond the tract where the Med, a thousand years ago, were a numerous and thriving population. Their brethren the *Mena* can be traced in their original seats to the bank of the Indus, and Mer still reside in *Kattyawar*, the *Saurashtrian* peninsula, which was the nursery of the piratical expeditions; and the *Mer*, *Mena*, and *Med* seem identical. Med still exist both to the E. and W. of the Indus, and those on the coast, unable to practise piracy, after the manner of their ancestors, follow the occupation of fishermen. To the east they are found roving on the borders of *Sind* and *Jodhpur*, the seats of their occupation during the Arab period; and to the west they are found in the little ports of *Mekran*, from *Sanuiani* to *Charbar*, divided into the clans of *Gazbur*, *Hormari*, *Jellarzai*, and *Chelmarzai*. When the Muhammadans first appeared in Sind, towards the end of the 7th century, *Zath* (Jat) and *Med* were the chief population of the country. But the original seat of the Med or Medi was in the Panjab proper, from which *Mr. Thomas* concludes that the original seat of the *Jatii* or *Jat* colony was in Sind.—*Elliot's History of India*.

MEDA. TEL. *Tetranthera Roxburghii*, T. monopetala, *Nees*, T. apetala, *L.* *Meda lakri* is one of the *ashta varga* or eight medicinal roots of the Hindus; *Meda-chob* is the wood, and *Meda-saq* the bark.—*As. Res.* xiii. p. 410.

MEDA. KARN. Medaravan, TAM.; Medara, TEL. A helot race occupied in cutting and selling bamboos, or making and vending bamboo baskets. In Coorg they are umbrella and basket makers and drummers; they dress like Coorgs, but eat beef. Medara, a worker in bamboo.

MEDE. The ancient territory of Medea is now included in modern Persia. The rise of the Median nation is wrapped in profound obscurity. They first appear about B.C. 850. The word Madai occurs in Genesis x. 2, along with Gomer, Javan, Magog, Meshech, and Tubal. Berosus mentions the Medes as having conquered Babylon prior to B.C. 2000, and held it for 224 years. History first notices the Medes in the latter half of the 9th century B.C. Shalmaneser II. led an expedition into Medea. Cyaxares, B.C. 632, led an invading host of Medes against Nineveh, but was met and defeated by Assur-Bani-pal at Adiabene, and the father of Cyaxares was among the slain. Cyaxares again led an army, and this time was victorious, but was prevented following up his victory by a Scythian inroad on his own dominions.

The Mede were a dominant race dwelling in part of modern Persia, and were classed as Arian. The Mede had many colonies. Herodotus mentions the Sigynnæ, a colony settled beyond the Danube. Medians are also said by Sallust to have accompanied the expedition of Hercules when he crossed over from Spain into Africa. The Sauromatæ were Median colonists beyond the Tanais or Don, and the Matienoi, Matienes, Kharinatoi, and possibly the Mares, were Caucasian colonists from Medea, preserving in their names the national appellation of Mada or Madia.

The Mede occupied the western part of the table-land of Iran and the bordering mountains of Kurdistan, from the frontier of Persia to the mountains of Armenia and the range of Elburz, which skirts the southern shores of the Caspian. The monarchy, as conquered by Cyrus and recovered by Darius, extended over the eastern part of the table-land as far as the Suliman mountains, which divide it from the Indus valley, and also the strip of coast between Mount Elburz and the Caspian and the other northern slopes which descend to the valley of the Oxus. These may be called the natural limits of the Medo-Persian empire, and they correspond to the extent of modern Persia, except that the eastern part of the table-land has been lost to Persia by the incursions of the Turkomans, and the Afghans, and the Baluch. But beyond Iran, the great Achæmid kings extended their power westward over the former dominions of Assyria, Babylon, and Syria, over Egypt and the region of Cyrene, and to the N.W. over Asia Minor and its adjacent islands, and beyond the Hellespont over Thrace. This wide empire was the Persia known to the Greeks from the reign of Darius to the conquest of Alexander, by whom the monarchy was overthrown in B.C. 330. This was the empire ruled over by Ahasuerus or Xerxes, noticed in Esther i. 1, an hundred and seven and twenty provinces. In Africa the furthest western boundary was at the bottom of the Great Syrtis. Modern Persia has only eleven of those provinces. The nations of Iran proper, or the Aryan stock of languages, comprise those of Medea and Persia. It includes the Zend of the cuneiform inscriptions and

the Zendavesta; the younger Pehlavi of the Sassanians and the Pazend, the mother of the present or modern Persian tongue. The Pushtu or language of the Afghans belongs to the same branch. The Iranian languages of British India are represented by the Sanskrit and her daughters. —Rawl. ii. 385; Elliot, p. 525; Bunsen; Cal. Rev.

MEDHA. SANSK. Apprehension or conception, from Medh, to be apt to learn.

MEDHI, in Assam, a member of a monastery; Medhi raj is the chief Medhi.

MEDHURST, a British consul in China, author of the Chinese and their Rebellion; also of Ancient China, the Shu King, or the Historical Classic, and A Glance at the Interior of China, London 1850.

MEDIA-BHUMI. Most nations have indulged in the desire of fixing the source whence they issued, and few spots possess more interest than the elevated Media-Bhumi or central region of Asia, where the Amu, Oxus or Jihun, and other rivers have their rise, and in which both the Surya and Indu races (Saca) claim the hill of Sumeru as sacred to a great patriarchal ancestor, whence they migrated eastward. The Hindus do not make India within the Indus the cradle of their race; but west, amidst the hills of Caucasus, whence the sons of Vaivasvata, or the sun-born, migrated eastward to the Indus and Ganges, and founded their first establishment in Kosulya, the capital of Ayodhya or Oudh. —*Tod's Rajasthan*, i. p. 24.

MEDICAGO ARBOREA, Linn., is the shrubby yellow lucerne of S. Europe.

Medicago lupulina, the black medich of Europe, Asia, and North America, useful as pasture grass.

Medicago radiata, Smith

Muh-auh, . . . CHIN. | Herdsman's root, . . . ENG.

This leguminous forage plant was introduced from Ferghana into China by Chang-k'ien of the Han dynasty. Chinese farmers use the legumes as food and as forage for cattle, and get three mowings in a year. —Smith.

Medicago sativa, L., purple lucerne.

Al-falfa, . . . ARAB? | Valaiti gawuth, . . . MAHH. Hol, Afeh, . . . LATAKH. | Kishka, Durasha, PUSHT.

Lucerne grows wild in Kashmir, in Ladakh, in the Pir Panjal range, and in the N.W. Himalaya, from 5000 to 12,000 feet. It is cultivated extensively in Afghanistan, where it is used as fodder for horses, etc., and Moorcroft says also in Ladakh, and that fields of it continue to be regularly cut for 50 or 60 years. This is the *Mnōia* of Theophrastus (Plant. de Caus. lib. 2, cap. 20) and the *Medica* of Pliny (lib. 2, cap. 20; also 18, cap. 20). It is cultivated in the Dekhan for feeding horses; also in Gujerat, where it is coming into use among the natives as green food for cattle. It is propagated by seed, and may be sown at any season, in bed or rows. It requires much water, and each plant should have five or six inches of space allowed to it. Cultivators generally cut it as it begins to blossom, when fresh shoots spring up, and by manuring it occasionally a succession of crops is continued in this way for several months. —Stewart; Riddell.

MEDICINE. The medical art, amongst the natives of the south and east of Asia, has had the knowledge of western Europe added to it during the 16th and up to the 19th centuries, and from Europe to the Pacific Ocean. In Egypt, in Africa, in Turkey, and Persia, and in the British, French,

Portuguese, Dutch, and Spanish East Indies are many medical schools, and numerous European, American, and native medical men teaching and practising their profession according to the doctrines of the schools of Europe. Amongst the Hindus, the art of medicine has been carefully studied from the most ancient times, and books on the subject have a large circulation. Of these, the Ayur Veda, which is reckoned a portion of the fourth or Atharva Veda, is considered the oldest treatise and the highest standard. It is said to have consisted originally of 100 sections, each containing 1000 stanzas, but fragments only are now procurable. The works of Charaka and Susruta, who are said to have lived about the time of Rama, are also regarded as of great authority; and Agastya, a Tamil writer, is fabled to have written upwards of 50 treatises on medicine, alchemy, and magic, but some of those attributed to him have been composed after the arrival of Europeans in India; and there are upwards of 120 Tamil works on medicine, some of them of considerable size. Amongst the Hindus of the 19th century, medical science is, however, much in the same state as it was in Greece in the time of Hippocrates. The Greeks seem to have derived from India their systems of philosophy and medicine, and Hippocrates and Plato taught that fire, air, earth, and water were the elemental constituents of our bodies. The views which Pythagoras and Plato entertained of health and disease precisely accord with those of Plato and the Hindu Susruta, and the Hindu system of therapeutics is much the same as that of Galen, who taught that the properties of all medicines are derived from their elementary or cardinal qualities,—heat, cold, moisture, and dryness,—and taught that if a disease be hot or cold a medicine with the opposite qualities is to be prescribed. A general belief in the hot and cold inherent qualities of medicines at this day pervades the whole of India, and the most illiterate labourer, as well as the most learned pandit, explains the action of medicine on this Galenic principle only. Some Hindu medical men are able and trustworthy, but the great mass of the native practitioners have not yet been taught anything of the science of Europe, and have not the slightest knowledge of their art, even according to their own authors. Nevertheless their materia medica is sufficiently voluminous, and their rules for diagnosis, as laid down by their ancient writers, define and distinguish symptoms with great accuracy. Their authors have also paid great attention to regimen and diet, and have a number of works on the food and general treatment suited to the complaint, with a variety of works on the medical treatment of diseases, containing much absurdity with much that is of value. Their value of experience and of a thorough education is also proved by many of their proverbs. The Muhammadans of Persia and India tell us, *Nim hakim, khatra-i-jān*, With a half-educated physician there is danger to your life; which is the English proverb, 'A little knowledge is a dangerous thing.' A familiar Tamil proverb warns that he only can be a good doctor who has killed ten persons; and a Singhalese proverb is that he who has killed half a thousand is half a doctor. But both the Tamil and Singhalese proverbs simply mean that there is as yet no regular teaching for

their physicians, who must acquire their knowledge by their own series of successes and failures. The *kachabonda* is a herbalist. The *vidyan* is a learned Hindu practising medicine, the *hakim* of the Muhammadans is a learned man, and the *tabib* is a physician. In Southern India the native medical practitioners claim to be either of the Yunani i.e. Grecian school of medicine, or of the Misri, i.e. Egyptian. The Misri is sometimes designated the Suryani or Syrian school. Most of the Muhammadan physicians are of the Yunani school, and the generality of the Hindu physicians follow the Misri school. The Yunani physicians use chiefly vegetable drugs in their treatment of the sick, and with them bleeding is deemed a suitable line of practice. The Misri physicians, on the other hand, chiefly use oxides of metals, sulphur, cinnabar, or sulphide of mercury, and orpiment or sulphate of arsenic; but these drugs are first combined, by the action of fire, with some other mineral substance, otherwise they are regarded as noxious. Also, they consider bleeding as never admissible. Every Muhammadan gentleman necessarily knows something of the healing art. The medical profession, therefore, ranks next to the clerical in point of respectability; and so highly is the study thought of, that even royalty itself will occasionally condescend to dose its subjects. There were in 1872 in Madras several men of noble family who regularly gave medical advice gratis.

The British Indian Government has established medical colleges at Calcutta, Madras, Bombay, and Lahore, and at Bareilly is a medical school for native girls.

The nabab of Hyderabad in 1846 permitted Dr. Maclean, the Residency surgeon of Hyderabad, to open a medical school near the Residency. In 1876, the Madras Government, on the suggestion of Surgeon-General Balfour, arranged for the medical instruction of women, and the Governments of Bombay, Bengal, and the Panjab have since followed in this, and in the N.W. Provinces, Travancore, and the Panjab other schools have been formed. The Bengal Government and the Travancore Government have founded scholarships for them. The English E. I. Company from their first arrival in the country brought to it commissioned medical officers from Britain for their military and civil services; and since the middle of the 19th century medical colleges have been established in connection with the Universities of Bombay, Madras, and Calcutta. At these Indian colleges the majority of the students had been educated for the public service in its military and civil branches, but there have been many private students who have graduated in medicine and surgery.

In the 1st century of the Christian era, Dioscorides made inquiry into the medicinal virtues of many Indian plants which were then brought to the markets of Europe. In the 2d century, the great Cornelius Galen published his famous work, the leading opinions in which, as to hot and cold medicines, were borrowed from India, where they still prevail. In the 7th and 8th centuries, natives of India practised as physicians in the Arabian hospitals of Baghdad, employing many valuable Indian drugs in their practice. Under Mamun, the Arabian professors of that school obtained, and taught from translations of, the

Sanskrit medical abastras of Charaka and Susruta. Thus, in teaching medicine to the Hindus and Muhammadans, Europeans are literally merely repaying what, for at least seventeen centuries, they owed to India. The first establishment which British enterprise obtained in India, was won by the science and the noble disinterested patriotism of two British surgeons,—Gabriel Broughton, who cured Shah Jahan's daughter of a frightful burn, and William Hamilton, who cured an ailment of Feroz Shah. Several of the medical officers of the E. I. Company's Service have been distinguished as authors, as botanists, as zoologists, as philologists, as statisticians, as historians, and as physicians. Amongst them may be named Sir Whitelaw Ainslie, James Anderson, Sir James Annealey, Sir George Birdwood, Buchanan Hamilton, Cantor, Crawford, Francis Day, Sir Joseph Fayrer, John Borthwick Gilchrist, William Griffiths, William Hamilton, Jerdon, Sir William Marsden, M'Clelland, Sir William O'Shaughnessy, Richardson, Roxburgh, John Forbes Royle, Thomson, Nathanael Wallich, Edward Waring, Robert Wight, Horace Hayman Wilson. On the 10th January 1836, pandit Mudusudun Gupta, a medical teacher of the Baid or physician caste, began to teach the Hindus the study of practical anatomy by dissecting a human body with his own hand. And by 1872, about 1200 native students in the medical colleges of India were following his example. Also Hindu gentlemen, who, having passed through a course of study as complete as any school in Europe can afford, have lately received in the Calcutta University that high degree of doctor, which in Salamanca of old gave the humblest scholar right of place among the superb Hidalgos of Spain, which in England ranks the physician and his brother doctor graduates only a few degrees below nobility. Doctor Chuckerbutty, a native of Bengal, and the first of his nation who achieved the honour of becoming a medical officer in Her Majesty's Indian army, first projected the Bengal Medical Association. About the year 1840, the plan of a Medical Mission was first recommended for China,—that is, of a Christian mission,—one main object of which was the conversion of the natives, the missionaries being medical men, securing an introduction through the practice of their profession. The arrangement seemed to be, for China, one of the best that could be conceived. And a similar plan has been adopted in India, in which Christian missionaries practise medicine, whilst instructing in their own doctrines. The Rev. Drs. Scudder, Strachan, Carslaw, Elder, Elmslie, Valentine, Parker, Green, Williams, Chester, Palmer, and Paterson have taught a pure faith to, and cured the bodily ailments of, the people, and their names will long be remembered.

S.E. Asia.—The books in use in Asia amongst the Buddhist religionists, the Hindus, the Chinese, and the Muhammadans, are all of ancient date. The Burmese obtained from India their theory of medical science, and most of the medical writings in the hands of their practitioners are translations from the Sanskrit into the Pali, Burmese, or Shan languages. The principal of them are the Ayur Veda by king Dhanwantari of Benares, of which an epitome has been framed called after that sovereign, who seems to have lived upwards of a

thousand years before the Christian era. They have also Susruta's book, called after its author, whose era was seemingly between the 9th and 5th centuries before Christ. The Drebyaguna Pudartha, a translation from the Sanskrit, purports to give a philosophical account of the physical, natural, medicinal, and dietetic uses of the different objects in nature. Nidana, still in Sanskrit, is the title of their works on nosology; and the Paara Korimudi and Lekshyana (Deepa) are their standard works on the theory and practice of medicine.

Burma.—There are no medical schools in Native Burma. The majority of the students are trained as private pupils or disciples by the older and more experienced physicians, who teach, feed, and clothe them, receiving in return only respect and obedience. A few of the future physicians are taught the elements of their art in the ky-oung or monasteries of the H'poongyees. There are three classes of physicians,—the Bein-dau-Saya (Bein-dau, medicine, and Saya, teacher), the Dat-Saya (Dat, element), and the Payoga-Saya or Seh-Gzan (Seh, a form of medicine, and Gzan, harsh or rough). The Bein-dau are the most numerous class, and in their practice rely entirely on the exhibition of drugs obtained from the vegetable or mineral kingdoms. They have adopted the theory of the five elements,—earth, water, fire, air, and ether. Amongst the Burmese, the surgeon, even in the oldest and lowest acceptance of the title, does not exist, and there is not the faintest knowledge of anatomy amongst those who in any way practise the healing art. They use no knife or instrument of any kind; all congenital and acquired deformities are left to nature, and even abscesses are never opened. They enforce a rigid abstention from all animal food during sickness and convalescence; and the foreign Chinese, Moghuls, and Armenians living amongst them have all adopted this injurious practice. The after-treatment of their parturient women is barbarous in the extreme. As if the hot, humid climate of that region is not more than enough to depress the woman, immediately after delivery, for the space of nine days, the room she occupies is fumigated with heated bricks placed in water, charcoal fires are kept constantly burning, she is made to sit on warm bricks, and her body is smeared with turmeric and saffron water. The Siamese also follow this exhausting practice.

The Dat-Saya are less numerous than the Bein-dau-Saya, and, like the latter, hold to the elemental theory; they are more frequently called in to prescribe in the advanced stages of disease, when the patients are too weak to bear the effects of drugs, or when the Bein-dau-Saya give up all hopes of the patient's recovery.

The Payoga-Saya are sorcerers or witch doctors, who resort to charms and incantations.

In Chinese philosophy, also, the five elements or factors enter into the composition of all things, and this theory guides their medical men. The old medical writers of China were the naturalists of their times, and that country had a long line of imperial, princely, and magisterial observers, who directed their attention to medical matters,—the ancient Shin-nung, Hwang-ti, Chi-peh, Lu-pien, Li-tang-chi, Hwa-to, Wang-shuh, and Li-shi-chin. The good sense of Li-shi-chin to a great extent purged the pages of his cyclopædia, the Pen-

tsau, of nonsensical or disgusting things; but in the present day, as a rule, Chinese doctors employ few mineral or metallic substances in the treatment of internal diseases; and to instruct all of them in the rational uses of mercurial and ferruginous preparations, would be to confer on their country a great boon. The first edition of the *Pen-ts'au-kang-muh* was published by the emperor Wan-leh about A.D. 1597, and the last regular reprint appeared in A.D. 1826, the sixth year of the reign of the emperor Tau-fang. In 1884, Surgeon-General C. A. Gordon added largely to our knowledge of Chinese medicine.

Ceylon.—The medical books of the native practitioners of Ceylon are mostly in Sanskrit or in Pali, but written in the Singhalese character, and some of them have been translated into Singhalese. They are in verses and stanzas, and may be arranged in five classes, according to their subjects, viz:—

On medicinal plants—

Wasudeva Negundo, 938 v.	Namawali Negundo, 290 v.
Saswati " 336 "	Sara " 112 st.

On the nature and symptoms of diseases, and on the anatomy of the human body—

Arishta Sataka, . 100 st.	Sariru-shana, ? Sutrashana, ?
Madhaiva Nidana, 1375 v.	Rupa Lakshana, ?

On the qualities and properties of medicinal plants, drugs, etc.—

Guna-patha, 700 stanzas.	Siddhanshudda Negundo, 331 verses.
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On the nature and cure of diseases—

Manjusa, . 4770 stanzas.	Sara sangsapa, ?
Yogar-nawa, ?	Chintamani, ?
Wara-sura Sangraha, ?	Vydia-lankara, 278 stanzas.

Commentaries on the Manjusa—

Yogo-pitake.	Kola-wid'hu, 400 sentences
Bhaisajja-kalpa.	Wara-yoga-sara, 5000 "
Lakshana Jaya-deva.	Ratna-kana, 4000 "

The *Hindu* physicians in British India are designated *Baid* or *Vyidian*, and there are also many learned *pandits* practising medicine. The *Muhammadian* physician is styled *Hakim* or *Tabib*; and both of these religious sects have surgical practitioners, who occupy a humble position, as also oculists, cuppers, bleeders, bone-setters. The elemental philosophy is adopted alike by *Muhammadians* and *Hindus*; but the former recognise only the four elements of *Hippocrates*, fire, air, earth, and water, whilst the *Hindus* have the fifth element in *akasa* or ether, as adopted by *Pythagoras*. In the central parts of British India, as in the Central Provinces and at *Benares*, the medical books in the possession of the *Vydians* are either in *Sanskrit* or in translations from that tongue. Their names are—

Koshmabati and *Nidan Gudmogdur* in *Sanskrit*.
Sarangdhar-Amrit-Sagar in *Sanskrit* and *Naguri*.
Vydia Chintamani, by *Dhanwantari*? on fevers, nervous affections, and derangements of the urinary system.
Roga Nidhanam, by *Dhanwantari*? on constitutions, temperaments, and their peculiar diseases.
Vydia Sastram, by *Dhanwantari*? *materia medica*.
Dhanwantari Negundo, author unknown, a work on medicine, of great antiquity; very scarce.

Benares, built on the bank of the sacred *Ganges*, is a holy city of the *Hindus*, to which many pilgrims resort, and with many wealthy residents. It is a great seat of *Hindu* learning; but neither there nor in any other part of what is now British India, has there been, for unknown centuries, any

Hindu or *Muhammadian* public school for teaching the theory and practice of medicine. The establishment of such institutions at *Calcutta*, *Madras*, *Bombay*, *Nagpur*, *Lahore*, *Agra*, *Dacca*, and other places, has been the act of the British, imitated at *Hyderabad* in the *Dekhan* by the *Nizam*, and at *Trevandrum* by the maharaja of *Travancore*.

At *Benares*, as elsewhere in *India*, those who wish to follow the healing art, whether according to the doctrines of the *Hindus* or *Muhammadians*, place themselves under some well-known *Vyidian* or *hakim*, as pupils or disciples; and throughout that extensive country, the learned men willingly impart instruction gratuitously. The *Vyidian* practitioners of *Benares* are well supplied with books, some of them in *Sanskrit*, some in *Bengali*, some in *Hindi*, translations from the *Sanskrit*, but a mention of the names here will suffice—

Anjan Nidhan.	Hriday-dipak	Sarangdhar.
Madho Nidhan.	Negundo.	Salihotra.
Ajorna.	Gandak-rasayan.	Shata-sloki.
Ang-prakasham.	Lolimbraj.	Siddha-mantra.
Bhava-prakash.	Manjari.	Susruta.
Bal-chikitsa.	Madanpal.	Todarakh.
Gaj-chikitsa.	Nari Pariksha.	Taila-lep.
Bangsen.	Nighant.	Vishna-nidhi.
Charaka.	Pathya-Pathya.	Vivish-chaya.
Chikitsarjun.	Ras-Ratna.	Vuidya-Rahasya.
Chakratna.	Samuch-Chayna.	Vaed-jivan.
Chikitsa Kalika.	Ras-Kriya.	" mohotsar.
Dhatrimanjari.	Ras-Manjari.	" darpan.
Dhanwantari	Ratna-Mala.	Yog-chandrika.
Negundo.		

In the *Travancore* country three schools of medicine are known. The most generally accepted theory, however, is that taught in the *Ashtanga-hirudayam*, and its disciples call themselves *Ashtanga-hirudaya Vydians*. Their therapeutic agents are chiefly vegetable substances, but with a few drugs of mineral origin, of a mild nature. This school prevails throughout North *Travancore*, *Cochin*, and *Malabar*, and seems peculiar to those districts. In South *Travancore*, where *Tamil* is largely spoken, the medical practitioners style themselves *Chintamani Vydians*. They follow the writings of *Agastya*. In the capital, *Trevandrum*, also, there was, in 1876, one *Muhammadian hakim* or physician practising according to the *Yunani* or *Grecian* school. He was resorted to by persons wishing aphrodisiac drugs; and the books in his possession are such as are known to other *Yunani hakims*. The bulk of the *Muhammadians* in that part of *India*, however, avail themselves of a physician of one or other of the *Hindu* schools, which explains why there are so few of the *Muhammadian* religionists engaged in medical practice. In the capital, where there are many *Tamil* immigrants from British territory, both of the *Hindu* systems are in operation. The *Ashtanga-hirudaya Vydians* are of all classes of the community, from the highest *Namburi Brahman* to the humblest *Chova* and *Thien*. Among *Chintamani Vydians*, also, there are some high-caste people, but, generally speaking, the barber caste form the bulk of these practitioners. The *Chintamani Vydians* use chiefly the writings of *Agastya*. A large number of his books, printed in *Madras* in the *Tamil* language, are sold in *Travancore*; but his books are also obtainable in manuscript on palm leaves. There are also on palm leaves the books in *Sanskrit* of *Charaka* and *Susruta*, and one called *Belam*; but they are very scarce, and few practitioners are acquainted with them.

The *Ashtanga-hirudayam* is said to have been written by *Bagada-Chariar*, a Brahman convert to Buddhism; and the Travancore people suppose that he obtained his knowledge of medicine from the Buddhists. The book is in Sanskrit, in the Malealam character, written on palm leaves; but few of the practitioners possess a full copy of it. Thirteen of its chapters, with a Malealam explanation, were printed at the Government Press, Calicut, by Mr. Oopoti Cunnen, deputy-collector, Malabar. The complete book, however, has 120 chapters, and treats on hygiene, gives the outlines of anatomy and physiology, practice of medicine, surgery, ophthalmic medicine and surgery, obstetric medicine and surgery, and the manufacture and use of various obstetric and surgical medicines.

Kairava-gramam is an epitome of the *Ashtanga-hirudayam*. It is on palm leaves, in the Malealam language and character.

Satha-yogam, or the Hundred Modes of Administration, and *Sahasra-yogam*, or the Thousand Modes of Administration, are partly Sanskrit and partly in Sanskrit mixed with Malealam, a dialect known as the *Mani-prasalam*. They are palm-leaf books, in the Malealam character, and treat on the preparation of medicines, such as electuaries, decoctions, etc., the modes of administering them, and their uses.

Prayoga saram describes diseases and their treatment. It is a palm-leaf book, in the Malealam language.

Yoga ratna-samclayam is a palm-leaf book, in the Malealam language. It is descriptive of diseases and their treatment; but also indicates needed incantations and 'danam,' or charitable gifts distributed for the relief of the patients' ailments.

Yoga Mitham is in print, also on palm leaves, in the Malealam language. It describes the treatment of disease.

Manhali, a palm-leaf book, in the Malealam language, on the treatment of disease.

A few other medical books are still on palm leaves, but have also been printed in Malealam; they are said to be selections from larger works.

Karnatica.—The race who speak the Canarese tongue have been partitioned by several states, part of them under the Mysore kingdom, part of them under the British Presidencies of Madras and Bombay, and a part in the Hyderabad Government dominions. Their medical practitioners are usually known as *Vyda* and as *Chekichika*. The *Vyda* claim to be learned men who have derived their knowledge from the study of books. The latter believe that experience is the great teacher; but on the western side of the Canarese country, *pandits* also engage in the practice of medicine. Though acknowledging that surgery and midwifery were formerly regarded as branches of the medical art, and in the possession of books on those two subjects, they are all now-a-days physician purists. They possess printed and written and also palm-leaf books. Those of *Charaka*, *Susruta*, the *Agni bese*, *Bhillu Tantra*, *Parasara Sanhita*, *Jatukerna Tantra*, *Atrya Sanhita*, *Vagbhata*, *Neghutra Naker*, *Chekechasura-sungraha*, *Vidyamruta*, *Lolumburaja*, *Sahrungdhara*, *Madhava Nidana* are in Sanskrit, printed in the Nagari character, with a Mahrati commentary. But they are costly, and the people are poor, and parts only of most of them are purchased by the physicians, relating chiefly to internal diseases, or what may be termed medical ailments. Others, *Vidyarnava*,* *Bhasaja Culpa*,* *Rasaratnakerra*,* *Shadrasa Negundo*,* *Dhanwantari Negundo*,* *Kasava Nidana*,* *Raja Negundo*,* *Sata-sloki*, *Bhoom-Amruta*, *Jaga-choondari*, *Sarvangasoodari*, are also in Sanskrit, in metre, but are all on palm leaves, and the seven marked with an asterisk are incomplete.

The last two of this series, the *Jaga* and *Sarvangasoodari*, are on the treatment of venereal complaints. Their remaining works are on surgery and midwifery, and are *Salaya*, *Salakaya*, *Aupadhaaha*, *Aurbhara*.

In the *Madras Presidency*, where the spoken cultivated Hindu languages are Tamil, Telugu, Canarese, Uriya, Malealam, and Tulu (the people numbering in all about 30,000,000), we find amongst Hindu practitioners medical books in all the languages, but, with the exception of many of the Tamil works, the writers in which seem to have been original authors, most of the treatises appear to have been translations or compilations from the Sanskrit. The first of these to be mentioned are the medical books by *unknown Authors* in Sanskrit:—

Silpoe Sastrum, on the arts and manufactures of the Hindus, in Sanskrit, Tamil, and Telugu.

Bhahajah Sarwaswam, on the medicines applicable to a number of diseases.

Vydia Saravali, *Sidayoga Ratnavali*, *Sarasungraham*, *Shatashuloki*, on the medicines applicable to a number of diseases.

Bashajah Sungraham, sometimes called *Shatashuloky*, a medical work by an ancient doctor. The *Bavardah Danyekah* and the *Chendra Calch* are commentaries on it.

Chunnypatarn Avum, on thirteen kinds of delirium. *Dhanwantari Negundo*, a very ancient work on medicine. *Abhidana Ratnamala*, also called *Shadrasa Negundo*, on several medicines not in common use, also on various minerals and metals.

Sidayoga Ratnavali, a desultory work on various diseases, by an ancient author.

Kalpastamum, partly translated by Dr. Heyne.

Agni Purana, an epitome of Hindu learning, one treatise being on the healing art, applicable to man and beast.

Sanskrit Books by known Authors.

Dhanwantari—

Vydia Chintamani, on the pulse, fevers, spasmodic and nervous affections, derangements of the urinary organs, etc.

Vydia Shatashuloki, on materia medica.

Gonda Padum, on natural history and the nature of different ailments.

Kurma Kandum, on the causes of disease.

Roga Nidanum, on peculiar constitutions and temperaments, and diseases arising therefrom.

Vydia Sastrum, on materia medica.

Susrutum, by *Susruta*, on terms and definitions, on the different parts of the body, the nature of diseases, remedies, diet, and general management.

Ashtanga Hirudayam, by *Vagabutti Vydia*, on general principles, or theory of medicine, on the human frame; the nature of fever and other diseases, remedies for them, pharmacy, diseases of children.

Hirudaya Dipika Negundo, by *Bosha-deva*, is a dictionary or book of reference to the last.

Rasaratna Samuchayam, by *Vagabutti*, on pharmaceutical preparations, in which mercury, arsenic, and nine other metals are combined, sulphur and gems, also formulae for diseases.

Padardha Chandrakah, also called *Ayur Veda Rasanam*, by *Hamadri*, is a part of the *Ayur Veda*. *Servangascendary Tika*, by *Aruna Datta*, is a commentary on the *Ashtanga Hirudayam* and the *Padardha Chandrakah*.

Sekitcha Sara Sungraham, by *Vungasha*, on fever and other diseases, with their remedies.

Sekitcha Meruta Sagarum, by *Devi-Dasi*, on diseases resulting from vicious habits.

Rasa-Ratnacaram, by *Nityananda Siddah*, on pharmaceutical preparations, in which metals enter.

Rasa Saram, by *Govind Achari*, on metals, gems, pharmacy, and mysteries.

Vydia Chintamani, by *Valla-bendra*, on diseases and their remedies.

Bhalum, by Bhalacharya Rishi, on nosology and the practice of medicine.
 Sharanga Dariyam, by Sharanga, on nosology and the practice of medicine.
 Kulliana Karaka Bhashujam, by Wugraditya Charya Rishi, a general work on medicine.
 Shikritcha Kalika, by Tisat, on medicine.
 Vydia Amrutam, by Siva? on medicine.
 Dhanwanatri Saranedi, by Vesya Maha Rishi.
 Aurogyah Chintamani, by Pandit Damudara, on medicine.
 Rugvi Nachayam, by Madava Chya, on medicine.
 Chandrakala, by Bopa Dawa, a commentary on Shata-shuloky.
 Bavardha Dauekah, by Vanyduttah, do.
 Vydia Jivannam, by Solomba Raja, a short treatise on medicine.
 Yoga Shatakam, by Vararoochy, do.
 Chunnipata Padu Chendreka, by Manikayah, is a commentary on Yoga Shatakam.
 Bojana Kutubalum, by Raguudath Suri, on the nature of alimentary substances, on the differences in the constitutions of men and women. It refers frequently to the Dharina Sastra.
 Ayur Veda Prakusam, by Madvopaddeyay, on the venereal disease.
 Ayur Veda Mahodadi, by Stree Mukah, on diet and regimen.
 Ohamutara Chintamani, by Govinda Raja, on the treatment of many diseases.
 Vydia Vatumsam, by Solimba Raja, on diet and the general management of patients during the time they are taking medicine.
 Bhashaja Kulpum, by Bharadwajah, the vulgar synonyms of medicines.
 Raja Negundo, also called Abhidana Chudamony, by Narayana Pandit, a collection of medical tracts.
 Patleyah Vebodaha Negundo, a work similar to Raja Negundo.
 Mahapadam, dictated by Pala Kavya to Roma padi Raja; it treats of elephants, their breeding and diseases.
 Amara Kosha, by Amara Sinha, a Sanskrit dictionary. It was translated by H. T. Colebrooke.
 Raja Balabha, by Narayan Dasa, on materia medica. It is in the Bengali character.

The Tamil-speaking people are about sixteen millions in India and Ceylon. Their craving for knowledge is great: their energy and self-reliance remarkable. They emigrate readily to the West Indies, South Africa, Mauritius, Burma, Straits Settlements, and the Malay Peninsula. A knowledge of the English language is largely diffused amongst them, and many medical books have been printed in Madras and Jaffna, in Tamil and in English.

The Telugu-speaking people occupy the eastern part of the Peninsula of India, from Ganjam to a few miles north of Madras, and from the Bay of Bengal to Dangapura and Murgunda on the west of Beder, and are therefore partly under British rule, and partly under the Nizam of Hyderabad.

Medical Books in Tamil.

Agastya, nineteen books by, viz.—
 Vydia Vagadam Ayriti, 1500 verses.
 Kanda Puranam, a work on ancient history, 1000 stanzas, written in Sanskrit, and translated by Kashyapa Brahmini into Tamil.
 Tiruvalladal Puranam, 3367 stanzas, on moral philosophy, written in Sanskrit, and translated into Tamil by Parinjati a Pandaram.
 Pusavedi, 200 verses, on the religious rites and ceremonies of the Hindus.
 Diksha avedi, 200 verses, on magic and enchantment, on the use and virtues of the rosary, and on the education of youth.
 Pernul, 10,000 verses, in Shen Tamil, treats fully on all diseases, regimen, etc.
 Purana Nul, 200 verses, on exorcising, and contains many forms of prayer.

Purana Sutram, 216 verses, on the initiation of religious disciples and their forms of devotion; also on materia medica and regimen.
 Karma Kandam, 300 stanzas, on diseases resulting from folly and vice, supposed to be a translation from the Sanskrit of Dhanwantari.
 Aghastier Vydia, Nutiambedu, 150 stanzas, on purification, on sixty-four poisons, metallic, vegetable, and animal, and their manipulation to make them safe medicines.
 Aghastier Vydia (Ernuti Anji), 205 stanzas, on medicine and chemistry.
 Aghastier Vydia Vagadam, Narpottettu, 48 stanzas, on the cure of gonorrhoea.
 Aghastier Vydia, Padinaru, 16 verses, on diseases of the head and their remedies.
 Kalig-ghanam, 200 stanzas, on theology.
 Muppu, 50 stanzas, on 18 different kinds of leprosy and their cure.
 Aghastier Vydia, Ayriti Eranuru, 1200 stanzas, on botany and materia medica.
 Aghastier Vydia, Annuru, 500 stanzas, treating very fully on many diseases, and containing a great variety of useful formule.
 Aghastier Vydia, Mun-nuru, 300 stanzas, on pharmacy.
 Tanmudri Vagadam, by Tanmudri (Dhanwantari), translated by Agastya into Tamil verse. It has 2000 verses. Hindu practitioners hold it in high veneration for the particular account it gives of many diseases, and the valuable receipts it contains.
 Tirumullar Vydia Vagadam, by Tirumullar, 2000 stanzas, on the symptoms of disease, and on the diet while under treatment.
 Aghastier (Qu. Agastya) has also—
 Karaser Panjati, Munuru, 300 verses, teaching how to compound strong powders, pills, and other medicines.
 Dhanwantari Vagada Vydia Chintamani, teaches how to judge of the pulse, also treats of many diseases, and of the nature of animals, and contains some valuable recipes.
 Kylasa Chintamani, Vadanul, on the art of converting nine metals into strong powders. It also treats on arsenic and other powerful drugs.
 Bogar, a poetical description, in 700 verses, on the mode of compounding many powerful medicines.
 Bogar Yoga Marga Mulika, in two sections—
 Kayasiddi, or the art of strengthening the body.
 Yogasiddi, or the art of making preparations for strengthening the body (Kulpum), and several other medicines.
 Bogar Negundo, on corrosive and soluble drugs, also on gems and various animals. It, moreover, instructs how to mitigate the violence of powerful drugs, and how to make alcoholic tinctures.
 Bogar Nainar Terumantram, on the art of preparing several medicines into which metals enter.
 Nadi Sastrum, a treatise on the pulse.
 Vydia Vagadam, enumerates the name and nature of many diseases and medicines.
 Konkana-Ninar-Nul, teaches how to compound many powerful medicines.
 Kumbali Chintamani Negundo, a dictionary of drugs and the art of compounding medicines.
 Pannamaday Selladi, treats on several medicines prescribed for different diseases.
 Yuga Muni, Ennuru, 800 verses, describing several medicines.
 Ponnammattay Palakulembum Attavanai, enumerates several medicines, and treats of a few diseases. This book is not much sought after.
 Attavanai Vagadam, similar to the last.
 Agaradi Negundo, a dictionary of medicine, in good repute.
 Netra Vydiyam, 300 verses, on diseases of the eye, and the best remedies for such complaints.
 Kermapakum, 300 verses, on surgery?
 Detchavadi, 200 verses, on medicine, said to be from divine inspiration.
 Shesayam, 100 verses, and Wottiyam, 32 verses, are two works explanatory of six arts, viz. Vusayam, Stumbanam, Moganam, Aukershanam, Uchatanam, Maranam.

Yuga Muni, Chintamani, 700 verses, on chemistry and the science of medicine.
 Koraker Yyup, 100 verses, similar to last.
 Ohutta Muniar Ganam, 200 verses, partly theological, partly medical.
 Chutta Muniar Kalpam, 100 verses, on the art of preparing strengthening medicines from various plants.
 Ramadover, 500 verses, and Ramadaver, 200 verses, both books treat on corrosive and soluble drugs, also of chemistry and general medicine.
 Kamalamuni Sutrum, 77 verses, on chemistry and physics.
 Eda-kattu Sidder-pandel, 35 verses, similar to last.
 Pall-kani, author of several medical works.

Muhammadan medical practitioners are known by the designations Hakim and Tabib. The former means a scientific or learned man, the latter a physician purist. The Jarāh is a surgeon. Muhammadanism, known to its followers as Islam or Din-i-Islam, has been adopted by many nations, but the Arabic and the Persian are the languages chiefly employed by learned men when writing on any scientific subject. Most of the medical books of the old physicians of Turkish Arabia, Syria, Spain, and Northern Persia were in Arabic, some of which have been translated, and a notice of the books in these two languages may now be given.

Arabic Medical Books.

Qanun-fi't-Tibb, the canons of Avicenna, Abu Ali Husain-bin-Abid Allah-bin-Sina, born at Bokhara A.D. 980, died at Hamadan in Persia A.D. 1036. It contains five books—
 On the theory and practice of physic.
 On simple or uncompound medicines, with a description of their qualities and virtues.
 On anatomy and complaints affecting particular parts of the body.
 On diseases in general.
 On compound medicines.
 An Arabic edition was printed at Rome A.D. 1595, and a Latin edition at Venice A.D. 1608.
 Hal-o-Mujiz-ul-Qanun, annotations by Nafiz-bin-Iwaz on the Mujiz ul-Qanun-fi't-Tibb, an epitome or commentary, by Ala-ud-Din-Ali-ul-Korashi-ibn-Nafiz, of the Qanun of Avicenna. Nafiz-bin-Iwaz resided at the court of Ulugh Beg about A.D. 1450.
 Sharah-un-Nafisi, same author, a commentary on the above work.
 Al-Mughani-fi-Sharh-il-Mujiz, by Sadid-ud-Din Gazaruni, a commentary on the Mujiz of Ala-ud-Din-Ali-bin-Abu-l-Hazim-ul-Korashi, being a compendium of the science of physic, compiled from the works of Hippocrates, Galen, Avicenna, Honain-ur-Razi, and others. It is arranged into four chapters—
 On the laws of nature, also on the human constitution, and the means of preserving health.
 On the strength of different kinds of food, and of simple and compound medicines.
 On complaints which affect particular parts of the body.
 On diseases in general and their proper remedies.
 Sharh-ul-Asbab-wa'l Ilamat, by Nafiz-bin-Iwaz, dedicated to Sultan Ulugh Beg Gurjani, a commentary on the Asbab-wa'l Ilamat of Najab-ud-Din Muhammad Umar-us-Samarkandi, a very celebrated treatise on the causes, signs, and remedies of diseases.
 Tazkarah Taswidi, by Muhammad Ishaq, a general treatise on medicine.
 Hawl-us-Saghir, by Hafiz Muhammad, a general treatise on medicine.
 Bahr-ul-Juhaar, an ocean of gems, by Muhammad-bin-Yusuf, a diffuse treatise on general medicine.
 Salwa-ul-Mustaham, same author, and similar subject.
 Dur-ul-Mantakhab, the pearl of epitome, an abridgment of the Bahr and Salwa; author not known.
 Rasalah-i-Tibb, do. do.

Taqwim-ul-Adwiah, by Abul Fazal-bin-Ibrahim of Tabreez, the physician, and apothecaries' tables descriptive of the disorders to which each part of the human frame is particularly subject, and the proper medicines detailed.
 Makhtasar-u-Jalinus, an abridgment of the work of Galen; same author.
 Zabdat-ul-Hikm, by Ahmad-bin-Muhammad, dedicated to Sikander Pasha, rules for the preservation of health, by attention to food, dress, cleanliness, etc.; also a treatise on farriery.
 Khoas-ul-Fuukah, same author, an essay on fruits, describing their good and bad properties, particularly those species which are wholesome to be eaten at meals for promoting digestion.

Persian Books.

Zakhirah-i-Kharazam Shahi, by Ismail-bin-Husain-bin-Muhammad Jurjani, a topographical account of Kharazam, its climate, diseases, in ten chapters, A.D. 1110.
 Klif-i-Alai, by same author, a treatise on the preservation of health.
 Tibb-i-Yadgar, by same author, on medicine, an extensive pharmacopœia, in fourteen chapters.
 Aghraz-ul-Tibb, by same author, the whole science of physic, uniting the theory of the ancients with the practice of the moderns.
 Kafayat-i-Mujahidin, by Munsur Muhammad, dedicated to Sikandar Shah II. of Delhi, A.D. 1300, on the diseases of women and children, and their treatment.
 Dastur-ul-Ilaj, by Sultan Ali of Khorasan, A.D. 1334, dedicated to Abu Said Bahadur Khan, emperor of the Moghuls; a diffuse work on the whole practice of physic.
 Madan-i-Shifa, by Ali-bin-Husain of Bokhara, A.D. 1368, the Mine of Health, an alphabetical list of all diseases, with the proper method of cure.
 Rahat-ul-Insan, by Abul-Qawi-bin-Shehad, A.D. 1376, a general treatise on medicine, with prayers and charms for averting sickness.
 Tuhfa-i-Khani, by Mahmud-bin Muhammad, a physician of Shiraz, A.D. 1496; the whole science of medicine, in five chapters.
 Madan-us-Shifa-i-Sikandar Shahi, the Mine of Remedies, by Beva-bin-Khas Khan, A.D. 1512, dedicated to Sikandar Shah II., king of Delhi.
 Tuhfat-ul-Muminin, by Muhammad Momin, son of Muhammad Dilimi, a compilation from various Arabic and Sanskrit authorities, on the whole science of medicine; Persian; written A.D. ?
 Mantakhab-i-Tuhfat-ul-Muminin, by Hasan Nasir Allah, A.D. 1587, an abridgment of the Tuhfat-ul-Muminin; much esteemed.
 Takwim-ul-Adwiah, author unknown, an extensive list of medicines, with a description of their various qualities and uses, arranged in regular tables.
 Qarabidin Masumi, by Masum-bin-Ibrahim Shirazi, A.D. 1649, a complete dispensatory, with the qualities of medicines and modes of compounding.
 Ikhtiarat-i-Badi, by Ali-bin-Husain of Baghdad, a list of medicines, simple and compound, with their uses; written A.D. ?
 Tashrih, by Mansur-bin-Muhammad, A.D. 1396, dedicated to Pir Muhammad Jahangir, grandson of Timur, who commanded the advanced guard of the Tartar army when it invaded Hindustan. It is a general treatise on the anatomy of the human body, with plates of the veins, arteries, bones, intestines, etc. Considering its age, it is of considerable merit, and is in great estimation amongst Muhammadans.
 Taqwim-ul-Abdan, by Yahia-bin-Isa Ali Jazar, A.D. 1677, a tabular analysis of the human frame, with a description of the various complaints to which each member is separately liable, and an explanation of the proper remedies for every disease.
 Tibb-i-Akbari, by Muhammad Akbar Arzani, physician to the emperor Aurangzeb, A.D. 1678. It is a translation of the Arabic Sharh-ul-Asbab.
 Tajribat-i-Akbari, by same author, is a general treatise on physic, explained on the author's own experiences.
 Qarabidin-i-Kadari, by same author, an extensive pharmacopœia of medicines used in Hindustan.

Rias-i-Alamgiri, by Muhammad Raza, a treatise on medicine, food, clothing, etc., dedicated to the emperor Aurangzeb.

Sih'at-ul-Amraz, by Pir Muhammad Gujerati, A.D. 1720, prescriptions for the cure of all diseases.

Qarabidin-i-Shifai, by Mazaffar Shafa, a complete dispensatory, alphabetically arranged.

Qanun-i-Sikandari, by Sikandar-bin-Isma'il of Constantinople, physician to Nawab Waleja Muhammad Ali Khan of Aroot, to whom this is dedicated, A.D. 1747; a very diffuse treatise on all the disorders to which mankind is subject.

Moallijah-i-Sikandari, same author, an appendix to the Qanun.

Qarabidin-i-Sikandari, same author, A.D. 1751, a complete pharmacopoeia of the medicines used in the Carnatic.

Madan-i-Tajribat, a mine of experience, by Muhammad Mahdi, A.D. 1756, an esteemed treatise of medicine, alphabetically arranged, in which the virtues or qualities of each drug are particularly explained.

Farhangi Tabiban, European Physicians, a medical dictionary, an alphabetical list of medicines, with a description of their qualities. Author unknown.

Mizan-ut-Tibb, several well-written treatises on heat, cold, drought, moisture, and pregnancy. Author unknown.

Mizan-ut-Tibb, by Muhammad Akbar, styled Muhammad Arzani; MSS.

Mufarrir-ul-Kulub, do. do.

Nuskhah-i-Adwiah, a collection of medical prescriptions. Author unknown.

Tajriba-i-Hakim Ali Akbar, by Ali Akbar, a diffuse treatise on medicine, based on the author's practice.

Rasalah-i-Tibb, by Muhammad Masum, a treatise on medicine, and containing injunctions for care in compounding prescriptions.

Fan-i-duam-dar-Tibb, by Ali Yar Khan, is a general treatise on disorders to which mankind are liable.

Majmu-i-Rasail, by Abul Fazl Hussain, an essay on medicine, one on astrology, and one on interpretation of dreams.

Jami-ul-Fuaid, by Yusuf-bin-Muhammad, a collection from the most esteemed books on physio.

Faidat-ul-Akbar, same author, similar subject.

Khulassat-ut-Tajribat, by Muhammad-bin-Musaad, a short treatise on medicine, one on the art of dyeing, and a third on making paper.

Rasalah-i-Chob-Chini, same author, on the virtues of China root.

Asrar-i-Atibba (Secrets of Physicians), by Shahab-ud-Din, essays on the virtues of amulets, medicines, and charms for averting and removing diseases.

Shifa-ur-Rajal, the cure of mankind, same author, a poetical treatise on medicine.

Tajriba-i-Jamasp Hakim, by Jamasp, a general treatise on medicine.

Bahr-ul-Manafia, an Ocean of Benefit, by Maulud Muhammad, A.D. 1794, dedicated to Tipu Sultan, a diffuse treatise on midwifery, diseases of children, enchantments, exorcising devils, etc.

Tuhfa-i-Muhammadi, by Muhammad Nasir Afshar Turk, a general treatise on medicine, dedicated to Tipu Sultan.

Qanun dar Ilm-i-Tibb, a translation, by order of Tipu Sultan, of the complete London pharmacopoeia.

Tarjumah-i-Kitab-i-Angris, a translation of an English treatise on electrical and medical experiments.

Tarjumah-i-Kitab-i-Farang, a translation of Dr. Cookburne's treatise on the twist of the intestines.

Tuhfa Kan-i-Ilaq, translated from the Hindi by Muhammad Kasim-bin-Sharif Khan, the whole system of farriery.

Rasalah-i-Tibb-i-Aspan, translated from the Sanskrit by Zain-ul-Amin, A.D. 1519, and dedicated to Shama-ud-Din Musaffar Shah, on farriery.

Mufradat-i-Sikandari, originally written in Syrian by Yahia Kurb, and translated into Persian by Sikandar, a work on materia medica of the Arabian physicians, also of the later views of the medical men of Europe.

Mufradat-i-Mumina, on the materia medica, originally in Arabic, but translated by Mumina into Persian.

Kitab-ul-Adwiah-wa'l-i-Aghziat, by Abu Yakub Ishaq-

ibn-Suliman-ul-Isra'ili, a work on medicine and regimen.

Kitab-ul-Adwiah, by Bin Baitar, an Arabic book on simple medicines.

Kitab-ul-Judri-wa-Hasabah, by Abu Jafar Ahmad-bin-Muhammad, an Arabic work on smallpox and measles.

Kitab-i-Sirsam-wa-Barsam, same author, in Arabic, on phrensy and madness.

Kitab-us-Sumum, originally written by Shanak (Qu. Sharaka) of India, translated into Persian by Abu Hatim, and afterwards into Arabic by Abbas Saad-ul-Jauhari.

Kitab-i-Shashard-ul-Hindi, originally written by Shashar of India, but translated into Arabic. It is a work on the materia medica, with rules for identifying the articles.

Kitab-ul-Ghiza-wa'l-Mughtazi, by Abu Jafar, the Tabib, in Arabic, on diets and on the sick who require them.

Kitab-un-Nabz-il-Aristu, a work by Aristotle on the pulse, first rendered into the Syrian language, then into Arabic.

Mufradat-i-Ghani Muhammad, an Arabic work on the materia medica.

Alfaz-ul-Adwiah, the materia medica in Hindi, Persian, and Arabic, by Nur-ul-Din Muhammad Abdullah, Shirazi, physician to the emperor Shah Jahan.

Mufradat-dar-Ilm-i-Tibb, on botany and natural history, translated into Persian by order of Tipu Sultan, from French and English.

Finz-i-Alamgiri, by Muhammad Raza, an esteemed treatise on medicines, food, and clothing, in Persian, dedicated to the emperor Aurangzeb.

Sharh-i-Hadaqt-ul-Hikmat, an Arabic commentary on the Hadaqt-ul-Hikmat. It is by Muhammad-bin-Ibrahim, chief judge of Shiraz, and contains the whole course of the sciences read in schools. It is much esteemed amongst the Muhammadans of India.

Kitab-us-Shifa, by Abu Ali-bin-Sina (Avicenna), a celebrated system of natural philosophy, in Arabic (24 chapters), on theology, metaphysics, logic, rhetoric, arithmetic, mathematics, geometry, astrology, anatomy, poetry, and music.

Kifaya Mansuri, by Mansur-bin-Ahmad; Persian; printed.

Khulassat-ul-Hikmat, by Hakim Muhammad Hussain Khan; Persian; printed.

Nafisi, by Mulla Nafis, Kashafi; Arabic; written.

Risala-i-Nabz-o-Karora-o-Byhran, by Hakim Ahmad-ullah-Khan; Persian; written.

Makhzan-ul-Adwiah, by Hakim Muhammad Hussain Khan; Persian; printed.

Alfaz-ul-Adwiah, by Muhammad Yakub; Persian.

Tazkirah-ul-Hind, by Raza Ali Khan, a hakim, is a materia medica in Persian, written in the early part of the 19th century, and lithographed in 1806 at Hyderabad. It is an interesting volume.

MEDINA, a small city 245 miles from Mecca, where Mahomed died and was buried, A.D. 622, and the succeeding khalifs, Abubakr and Umar, are interred at his side. The building which encloses the tombs is hung with silk. It has 500 houses, with about 8000 population.

Medina is about a day's journey distant from the port of Jambo, in lat. 24° N., and long. 40° 10' E., with indifferent walls, and situats in a sandy plain. Before the days of Mahomed it was called Yathreb, but it was re-named Medinat-un-Nabi, the City of the Prophet. The tomb of Mahomed is in the corner of a large mosque, and is held in respect by the Muhammadans, but they are not obliged to visit it in order to the performance of any devotional exercises. Muhammadans attach much importance to, and consider sanctity derivable from, burial in particular spots, though the notion appears so entirely contrary to the spirit of their religion. Great numbers of dead are sent continually from all parts of Persia

for interment, at the sepulchre of Ali on the frontier of the Arabian desert. The prevailing idea is that, by being buried near a holy saint, they will be raised along with him at the resurrection, and receive his protection and countenance; but the opinion is certainly heterodox. A similar idea seems to have been received in Israel of yore; the old prophet of Bethel desired to be buried beside the man of God that came from Judah, whom he had deceived into his destruction, and Acts vii. 15, 16 is to the same effect. One traveller relates that he met a caravan of dead. Each mule bore two dead bodies slung like portmanteaus on either side; and by the time they could reach their destination their burdens would be in a loathsome state. A few of the friends and relatives of some of the deceased were accompanying this mournful caravan, but by far the greater number of the corpses had been consigned to the muleteers, without any one else to look after them. Mr. John F. Keene, of whose visit to Mecca mention was made under that name, shortly afterwards visited Medina, and his account of his journey was supposed to be authentic.—*Niebuhr's Travels*, ii. pp. 39, 40.

MEDITERRANEAN SEA, an inland sea that extends between Asia, Africa, and Europe, communicating with the Atlantic by the Strait of Gibraltar, and with the Black Sea by the Strait of Galipoli, the Sea of Marmora, and the Strait of Constantinople. It is above 2200 miles in length, but has little or no tide, and a constant upper current sets in from the Atlantic, through the Strait of Gibraltar. By way of eminence, it is called the great sea in Numbers xxxiv. 6 and elsewhere. In Exodus xxiii. 31 it was called the Sea of the Philistines, because their country, Palestine, bordered on its shores.

MEDLAR. *Mespilus Germanica*, Linn.

Talia of . . . *Dioscorides*. | Keel, *PERS.*
 *GR.* | *Setania*, *Mespilus* of Pliny.

Common in many parts of Europe, and grows in the hedgerows of England.

MEDUSÆ, a group of the *Acalephæ*. *Aurelia*, *Pelagra*, *Chrysaora*, and *Chrysopora* are the more common genera. The *Medusæ* and the *Actinæ* are known as sea-nettles, because of their stinging powers. *Cyanea caliparea* of Pondicherry (*Medusa caliparea*, *Rcyn.*) secretes an extremely acrid and irritating fluid. The Portuguese man-of-war, *Physalia*, also causes a considerable amount of irritation.—*Fiquier*; *Moquin Tandon*.

MEDYA-WAR or *Mewar*, the central region, a territory of India, bounded to the north by the *Aravalli*, to the south by the country of the *Pramari* race of *Dhar*.—*Rajasthan*, ii. p. 8.

MEEANEE, a Sind village, six miles on the north of the town of Hyderabad. *Meeanee* is the general name for the little villages in Sind, populated chiefly by fishermen.—*Burton's Scinde*.

MEEAN MEER or *Mian Mir*, a British military cantonment in the Lahore district of the Panjab. Lies in lat. 31° 31' 15" N., and long. 74° 25' 15" E.

MEENA, a term commonly used in the Panjab, expressive of contempt or opprobrium.—*Cunningham's Sikhs*, p. 57.

MEENA, an active, energetic race, whose history illustrates several points. They constitute a portion of the population of Rajputana, especially in the Jeypore country between Ajmir and Dehli. In Northern Rajputana the country to the east

of Shekhawatti is the chief home of the Meena, and it is a region politically as well as naturally favourable to the dacoit and the thief. Wild hills and ravines abound in parts of it. Within a radius of 25 miles is comprised a territory subject to no less than nine governments, namely, a part of Shekhawatti and Jourawatten in the dominions of the maharaja of Jeypore, Kol-Puti belonging to the raja of Khetri, but held direct from the British Government, Dadree to Jheed, Narnoul to Pattiala, Kante to Nabha, a portion of Ulwar, Loharoo, Bikanir, and Shahjahanpur, where lie the Meena settlements of the district of Gurgaon. These tracts are superintended by several officers.

The Purihar branch of the Meena occupy the Kherar, to the south of Deolee in Haraoti. They are said to be descended from the Purihar Rajput of Mundore, claiming from the celebrated Nahar Rao, king of Mundore, in Marwar, whose son Shoma married a Meena woman. The Meena were the prior occupants of Mewar and Jeypore, till driven out by the Rajputs. The most powerful clans of the Marwar Meena found shelter in the strip of country at the junction of Boonda, Mewar, Jeypore, and Ajmir, called the Kherar. They are a very brave, bold race. The Jeypore Meena in like manner have their stronghold at the junction of the Ulwar, Jeypore, and British districts. In Serohi, the Meena are still the aborigines.

The Cheeta Meena is a branch of the Meena race, from whom sprang the Mair or Mera race, whose country is styled Mairwara, or region of hills.

The Mair branch of the Cheeta Meena is also called Mairote and Mairawut. Mera is a mountain in Sanskrit; Mairawut and Mairote, of or belonging to the mountains; the name of the Albanian mountaineer Mairote has the same signification. Mairwara is that portion of the *Aravalli* chain between Komulmir and Ajmir, a space of about 90 miles in length, and varying in breadth from 6 to 20. The Cheeta Meena claim descent from a grandson of the last Chauhan emperor of Dehli. Unail and Anoop were the sons of Lakha, the nephew of the Chauhan king. The cocoanut was sent from Jeysumir, offering princesses of that house in marriage, but an investigation into their maternal ancestry disclosed that they were the issue of a Meena kept woman, and their birth being thus revealed, they became exiles from Ajmir, and associates with their maternal relatives. Unail espoused the daughter of a Meena chieftain, by whom he had Cheeta, whose descendants enjoy almost a monopoly of power in Mairwara. The sons of Cheeta, who occupied the northern frontier near Ajmir, became Muhammadans about fifteen generations ago, when Doodha, the sixteenth from the founder of the race, was created Dawad Khan by the hākim of Ajmir; and as Athoon was his residence, the Khan of Athoon signified the chief of the Mairote. Athoon is still the chief town of the Mair race. Chang, Jhak, and Rajosi are the principal towns adjoining Athoon. Anoop also took a Meena wife, by whom he had Burrar, whose descendants have continued true to their original tenets. Their chief places are Burrar, Bairawara, Mundilla, etc. The Meena were always notorious for their lawless habits, and importance has been attached to them so far back as the period of Beesildeo, the celebrated prince of Ajmir, whom the bard Chand states to

have reduced them to submission, making them carry water in the streets of Ajmir. Like all mountaineers, they broke out whenever the hands of power were feeble. A thousand years ago, Meena chiefs ruled much of the territory now held by the maharaja of Jeypore. A clan of them are still the hereditary guards of the city gates, and of the fort which holds the treasures of the state. The Mair country is situated but a very few miles west of Ajmir, and is composed of successive ranges of huge rocky hills, the only level country being the valleys running between them. From the sturdy valour of this race, the rulers of India never made any impression on them, notwithstanding their vicinity to the occasional residence, for a long period, of the emperors of Hindustan. In later times the Mair were the terror of their lowland neighbours; and even the Rajputs, perhaps with the sole exception of the Rohilla, the bravest men in India, dreaded their approach. The Mair of the Mairwara Hills occupy the Aravalli range running towards Ajmir. The Koli assert their relationship to them, and they admit having intermarried with the Bhil and Meena; and Colonel Dixon says that for hundreds of years they have been recruited by refugees and all sorts of rascals from Hindustan, and they are probably a very mixed race.

Sir W. Sleeman pronounced the Meena irclaimable; but Colonel Younghusband, about 1864, took the Kherar police in hand, and began operations which resulted in complete success. The Meena from the north were the most formidable class with whom he had to deal. The Thuggee and Dacoity Department had been bringing the Meena to justice ever since its operations began, but special efforts and systematic proceedings against them in their homes had never been pursued so persistently and vigorously as the matter required. An officer was then appointed to conduct, under Colonel Harvey's direction, operations for the suppression of dacoity throughout Northern Rajputana, amongst the Meena, who, in consequence of a famine, had been doubly active in robbing the Government mail, and committing other depredations. They made free use of the railway, and had, it is said, resolved in council assembled to continue their mode of life and resist all measures of repression and reform. The mode of proceeding in Native States, when the chiefs act at all against robber tribes, is to drive them away if possible, and this was formerly the system in Jeypore. But the true way of dealing with them is to control their movements at their homes, where they rarely commit depredations. The successful plan pursued against the Purihar, was to hold the headmen responsible for the presence of the Meena in their villages. None could absent themselves from their respective villages without a leave-certificate, or if any did so, they were liable to be seized and punished. The Meena are not of low caste, like the Sansee, the Bhowree, and other thieving tribes.

Colonel Tod, writing in the early part of the 19th century, says the Meena afford an excellent practical illustration of Menu's axiom, that the right in the soil belongs to him who first cleared and tilled the land. The Rajput conqueror claims and receives the tribute of the soil, but were he to attempt to enforce more, he would be brought to his senses by one of their various modes of self-

defence, incendiarism, self-immolation, or abandonment of the lands in a body. Throughout India, he adds, where traces of originality yet exist, it will invariably appear that the right in the soil is in the cultivator, who maintains, even in exile, the huk bapota-ca-bhom in as decided a manner as any freeholder in England.—*Campbell*, p. 45; *Colonel Brooke in literis*; *Tod's Rajasthan*, i. 681, ii. 612, 672; *Cole. Myth. Hind.* p. 299.

MEERSCHAUM, a mineral belonging to the series of silicates of magnesia. The richest beds are near Eski-shahr, in Asia Minor, but it is also found in Moravia, Spain, Greece, and the Crimea. It is dull-white, opaque, and earthy, nearly like clay. Its hardness is 2·0, and sp. gr. 2·6 to 3·4.

Silica, . . . 42·0 | Water, . . 23·0 | Alumina, . . 2·0
Magnesia, . . 30·5 | Lime, . . 2·3

When heated, it gives out water and a fetid smell, and becomes hard and perfectly white. When first dug up it has a greasy feel, like soap, and on this account is used by the Tartars in washing their linen. In Europe it is made into bowls of tobacco pipes, which are hence called meerschaum. The magnesite of the Peninsula of India might be utilized as meerschaum.—*Dana*.

MEERUT, a town and military cantonment, which gives its name to a revenue district of the N.W. Provinces of India, lying between lat. 28° 18' 15" and 29° 18' N., and between long. 77° 10' 30" and 78° 14' E. Meerut town is almost in the centre of Meerut district, nearly midway between the Ganges on the east and Jumna on the west, about 3 miles west of the Kali Nuddi. It is in lat. 29° 0' 41" N., and long. 77° 45' 3" E., 850 feet above the sea. The Suraj Kund, constructed in 1714, is surrounded by numerous small temples, sanctuaries, and sati pillars; the Dargah of Shah Pir, of red sandstone, was erected about 1620 by Nur Jahan, wife of the emperor Jahangir; the Jama Masjid, built in 1019 by Hasan Mahdi, wazir of Mahmud of Ghazni, was repaired by Humayun; near are the remains of a Buddhist temple. It has also mausoleums of Abu Muhammad Kambah (1658), Salar Masaud Ghazi (1194), and Abu Yar Khan (1577).—*Imp. Gaz.*

MEGACEPHALON RUBRIPES, the Maleo bird. It deposits its eggs in the loose sand of the sea-beach, in holes just above high-water mark; the female lays one large egg, which she covers over, and returns to the forest; but many birds lay in the same hole. A dozen eggs are often found together. One egg fills an ordinary tea-cup, from 4 to 4½ inches long, and 2½ to 2¾ wide. They are very good to eat, and much sought after. The hen-bird takes no further care of the eggs, which the young bird breaks through about the 13th day, and runs at once to the forest. Each hen lays six or eight eggs in the season of two or three months.—*Bikmore's Travels*, pp. 101-378; *Wallace's Archipelago*, i. p. 175.

MEGACHILE, the leaf-cutter bee. Their nests are to be found in thousands in the cliffs of the hills of the Sone valley, with May-flies, caddis-worms, spiders, and many predaceous beetles.—*Hooker. Him. Jour.* i. p. 52.

MEGADERMOTINÆ, a sub-family of mammals of the family Vampyridæ. Its genera in India are the *Megaderma* Horsfieldii, of Tenasserim; *M. lyra*, of all India; *M. spasma*, of Ceylon and Malaya; and *M. spectrum*, of Kashmir. *Megaderma lyra* bat is the *M. Carnatica* of

Mr. (Sir Walter) Elliot, and seems to be very generally diffused throughout India, being replaced in the Malay countries by *M. spasma*, and further east by *M. Philippinensis*, *Waterhouse*, P. Z. S., 1843, p. 69, while in Africa it is represented by the *M. frons*.—*Blyth*.

MEGALAIMA INDICA. *Latham*. *M. Philippensis*, var., *Latham*. The incessant call of the greater red-headed barbet resembles the blows of a smith hammering a caldron, hence its name of coppersmith. There are several species of this genus, viz. *M. flavifrons*, *M. rubricapilla*, and *M. Zeylanica*. The Megalamidæ family of birds comprise the genera *Megalaima* and *Megalorhynchus*.

MEGAPODIDÆ, a family of gallinaceous birds, found in Australia and its surrounding islands, as far west as the Nicobars, also the Philippines and the N.W. of Borneo. They bury their eggs in sand, earth, or rubbish, and leave them to be hatched by the sun or by fermentation. They have large feet and long curved claws, and most of them rake together rubbish, dead leaves, sticks and stones, earth and rotten wood, until they form a mound often 6 feet high and 12 feet across, in the middle of which they bury their eggs. The eggs are as large as those of a swan, and of a brick-red colour, and are considered a great delicacy. The natives are able to say whether eggs lie in the mounds, and they rob them eagerly. It is said that a number of these birds unite to make a mound, and lay their eggs in it, and 40 or 50 are found in one heap. The mounds are found in dense thickets. The species of the Megapodidæ in Lombok is as large as a hen, and entirely of a dark hue with brown tints. It eats fallen fruits, earth-worms, snails, and centipedes, but the flesh is white, and, when properly cooked, well flavoured. The young birds when they come out of the egg are sufficiently developed to do without a mother's care, and provide for their own wants. *Talegalla* is the Australian name. The Megapodius or Leipoa is called by the natives of Borneo Menambun (from Tambun, to pile, to heap up). One nest or heap was found close to the edge of the sea-sand, and was formed over a fallen Aru or Casuarina tree, and covered, but not densely, with shrubs. The pile was 60 feet in circumference. These birds lay most disproportionately large and thin-shelled eggs, and the young comes forth from them well plumed, and sufficiently advanced to make their way in the world. The Megapodius Nicobarensis has not hitherto been met with excepting in the Nicobars, but would appear to be common on all the islands of that group, according to the personal observation of the Rev. J. Barbe, p. 351. *M. Cumingii* occurs in Labuan.—*Keppel's Ind. Arch.* ii. p. 120.

MEGAPTERA KUZIRA, a finner whale of the Japanese seas. Other finners are—

Phyalis iwasi, the Japan finner. It is very rare. In 1760, one 25 feet long was cast ashore at Kii.

P. antarcticus, *Gray*, inhabits the New Zealand seas.

P. Brasiliensis, the Bahia finner.

P. Australis, the southern finner, inhabits the seas of the Falkland Islands. See *Mammalia*; Whales.

MEGASTHENES, B.C. 306-298, was sent by Seleucus Nicator on an embassy to Sandracottus or Chandragupta, ruler of the Prasii or Prachya,

whose capital was Palibothra, identified with the Sanskrit Pataliputra and the modern Patna. Megasthenes tells us that the Indians of his time did not communicate their metaphysical doctrines to women, thinking, as he says, that if their wives understood their doctrines and learned to be indifferent to pleasure and pain, and to consider life and death as the same, they would no longer continue to be the slaves of others. We find from the later ceremonial Sutras (*Srauta* and *Grihya Sutra*) that women were not allowed to learn the sacred songs of the Vedas, the knowledge of which constituted one of the principal acquirements of a Brahman before he was admitted to the performance of the sacrifices. *Menu* ix. 18 says, Women have no business with the text of the Vedas, thus is the law fully settled; having therefore no evidence of law, and no knowledge of expiatory texts, sinful women must be as foul as falsehood itself, and this is a fixed rule. Megasthenes was perhaps the first European who had ever beheld the Ganges. He dwelt for several years in Palibothra, and wrote an account of the country, which, though now lost, has probably been transmitted to us pretty closely in the narratives of Diodorus Siculus, Strabo, Ælian, and Arrian. His *Indika*, written about B.C. 300, has been translated by Mr. M'Crinde in the *Indian Antiquary*. Describing the races, he says: 'Next follow the Narece, enclosed by the loftiest of Indian mountains, Capitalia. The inhabitants on the other side of this mountain work extensive mines of gold and silver. Next are the Oraturce, whose king has only ten elephants, though he has a very strong force of infantry. Next again are the Varetatce, subject to a king who keeps no elephants, but trusts entirely to his horse and foot. Then the Odombœrce, the Salabastœ, the Horatœ, who have a fine city defended by marshes, which serve as a ditch, wherein crocodiles are kept, which, having a great avidity for human flesh, prevent all access to the city except by a bridge; and another city of theirs is much admired, Automela, which, being seated on the coast at the confluence of five rivers, is a noble emporium of trade. The king is master of 1600 elephants, 150,000 foot, and 500 cavalry. The poorer king of the Charmos has but 60 elephants, and his force is otherwise insignificant. Next comes the Pandœ, the only race in India ruled by women. They say that Hercules having but one daughter, who was on that account all the more beloved, endowed her with a noble kingdom. Her descendants rule over 300 cities, and command an army of 150,000 foot, and 500 elephants.'

It is to Onesicritus, one of the companions of Megasthenes, that we are indebted for the earliest account of Ceylon or Taprobane. From him we first hear of its trained elephants, its pearls, and its gold. Megasthenes maintained friendly relations at the court of Palibothra between Syria and India, and effected a matrimonial alliance. His journal names as rivers Cynos, the Cane; Cossoanus, Cosa or Coss; Sonus, the Sone; Condochates, Gunduk; Sambus, Sumbul or Chambal; Agoramis, Gogra; Commenses, Caramassa, etc.

Megasthenes went on his embassy at a very interesting period. The old line of the Nandas had been overthrown, and Chandragupta had won the crown. Brahmanism was the prevailing religion,

but Megasthenes refers distinctly to *Boutra*, or Buddha. The caste system was in full vogue, so Brahmanism must have been in the ascendant; but the fact that Chandragupta married a daughter of Seleucus Nicator, shows that the monarch favoured the rising faith of Buddha. Megasthenes makes the number of castes seven, and his divisions seem to be of a professional character. His description of the life and manners of the Hindus applies in many respects to the people of the present day; in their simple food they continue unchanged. Chandragupta is represented as living in a large palace, with a body-guard of women fully accoutred, who accompanied him in his hunting expeditions. His camp, when he took the field for war, contained 400,000 men. The capital, Palibothra, stretched 10 miles along the bank of the Ganges, and was 2 miles wide. Diamachus was the next Greek ambassador after Megasthenes. —*Cal. Rev.*, 1868; *Rennell's Memoir*, p. 30; *Strabo's India*, p. 39.

MEGHADUTA, an ancient Sanskrit drama, an excellent example of purely descriptive poetry. A yaksha or spirit banished from heaven charges a cloud with a message to his celestial mate, and describes the countries over which it will have to pass.

MEGNA, a river running through the eastern part of the province of Bengal. It is formed by the junction of the Surma and the Barak, which have their sources in the mountains running along the N. and E. frontiers of the Sylhet district. The united stream, after a course of about 30 miles, joins the Brahmaputra, in lat. 24° 9' N., and the Brahmaputra thence takes the name of the latter. Thus augmented, the Megna swells into an expanse resembling an inland sea, studded with islands. About 10 miles further down it receives another branch of the Ganges, and in the remainder of its course is separated from the latter river only by a narrow strip of land. In lat. 23° N. it takes a S. direction, and, after a general southerly course of 120 miles, discharges itself by a wide embouchure into the Bay of Bengal, and closely adjacent to the delta of the Ganges, with which it forms numerous interlacements. The muddy waters of these great rivers form numerous banks and islands, the principal of which are Dekhan Shahbazpur, Hattia, and Sandwip, and between these the tides run with great rapidity.

The regular rise of the tide is from 10 to 18 feet, and at every full and new moon the sea rushes up in a single wave, known as the 'bore.' The bore is heavier at the time of the biennial equinoxes, when navigation is sometimes impeded for days together, especially when the wind blows from the south. Before anything can be seen, a noise like thunder is heard in the far distance seawards. Then the tidal wave is suddenly beheld, advancing like a wall topped with foam, of the height of nearly 20 feet, and moving at the rate of 15 miles an hour. In a few minutes the wall rushes by, and the brimming river has at once changed from ebb to flood tide. A greater danger than the bore are the cyclone storm-waves, which occasionally sweep up the Megna. These are most liable to recur at the break of the monsoons in May and October. In the cyclone of May 1867, the island of Hattia was entirely submerged by a wave, which is estimated to have reached a height of 40 feet. Again, toward evening of 31st October 1876, the wind had gradually

risen till it blew a gale. Suddenly at about midnight in some places, and nearer dawn in others, the roar of the wave was heard, drowning the noises of the storm. Two or three waves came on in succession, flooding in one moment the entire country, and sweeping before them every living thing. The destruction of human life on that night is estimated at 100,000 souls in the mainland portion of Noakhali district, and the two islands of Sandwip and Hattia, or about 19 per cent. of the total population. The mortality subsequently caused by cholera, and a train of dependent diseases, equalled that due directly to drowning.

Over all these islands, flat as a table, and without any shelter, the hurricane blew; while the wretched people cowered behind their crashing huts and falling groves; but the first blast was only the eastern periphery of the circular storm, which thus swept up the Megna, meeting the current, and partly conquered by it. The boatmen of the Sunderbans do not so much fear the cyclone upon the water when it thus fights the tide. But on this occasion the islands of the Megna and its broad channel seem to have been the very centre of the circular storm, which accordingly, after thus with its upward sweep scourging the land and piling up the water, turned almost like a wheel over Lakhimpur, and, whirling downward again, drove with its western segment the heaped-up waters of the two great rivers in a wall of death thrice as high as the 'bore,' washing clean over the rich and populous islands. They stand some 20 feet above mid-tide, yet this wave of the cyclone ran at least another 20 feet high over the dry land, submerging every hamlet and cattle-shed, drowning men, women, and children in their sleep, bursting over tank, garden, and temple. From the moment when the first howl of the cyclone was heard tearing upward from the ocean, to the awful return-stroke of the tempest, herding before it the dark waves of water, hardly thirty minutes had elapsed. Tens of thousands of human beings were by that time caught up and washed like drift-wood into the boiling bay; tens of thousands more were choked in their beds by whelming waves and ruined buildings; and all the works of their hands, all their possessions, all their cattle, were similarly seized in the black flood and destroyed. A few escaped, for these poor natives are the most dexterous climbers. Thanks to this habitude, some, on being dashed against the trunks of the palms and areca trees, managed to climb out of the flood, and cling upon the bending stems until the waters subsided; others, clambering on the chupper-roofs of their huts, were washed out to sea, and driven upon the opposite bank of the Megna. By noon next day these miserable survivors saw the dry land again, and were saved; but 100,000 had perished out of an island and shore population of about a million, and some villages lost as many as 70 per cent. of their inhabitants. Sir Richard Temple visited the submerged district, and reported 3000 square miles desolated, and the whole area of islands and shores lying like the corpse of a province,—drowned, bare, and ghastly. One of the certain effects of this cyclone-wave was that the animals of the jungle were all drowned; the carrion-eating

creatures, the snakes, the insects, the rats, all had shared the common fate. Even the birds were surprised by the deluge, and died in vast numbers. There had been nothing so awful since the similar catastrophe in 1822 in the same district, when 100,000 people are said to have perished. On that occasion no fewer than 40 children were brought to birth by the frightened mothers while taking refuge in the tree-tops, a circumstance which sufficiently depicts the terror and helplessness of such a visitation. It may be possible in future to protect the Megna villages against such calamities, by the old Assyrian device of erecting nigh at hand a spacious and lofty mound of clay. Such artificial eminences would have saved 100,000 lives on that frightful last night of October, when the pent-up tide of two enormous rivers rolled over every home and every refuge.

The tract between the Megna and the Hoogly is often devastated. It is hardly accurate to call it land. Some name should be found for the marshes, chars, khals, dones, and islands of Bakar-ganj and the Sunderbans. Every acre in this vast watery wilderness has been brought down from countries hundreds of miles away, and piled up in the sea until the restless rivers have conquered league after league from the deep water, and built a district there. Two of the mightiest streams of earth, the Ganges and the Brahmaputra, are for ever at this silent work, and their discoloured waves roll perpetually down from the mountains of Tibet and the plains of the North-West that red and yellow mud which has formed a province. The larger part of their labours is still hidden under the Bengal Sea, and silt which the leadaman brings up off Saugor Island has come as likely as not some 2000 miles, from Gan-gotri or the Jumna. The two great rivers unite in the Megna estuary, sending out a labyrinth of arms and branches which interlace the alluvial soil with a thousand channels, and turn into an archipelago the province which the Brahmaputra and its Indian sister have created. The intervening islands and islets are like nothing in the world beside themselves. Flat as the Essex and Kentish marshes, monotonous in feature as Lower Egypt, they are yet the most fertile and the greenest country to be seen. The soil, level and clean as a lawn, is richer than even the alluvium of the Nile; not a square inch of it is bare; if man does not plant it, the slimy mangroves fringe every bank, canes and reeds cover every shoal; and the drier parts, or kholas, are dressed in waving jungle full of kerua, goma, and gab trees. But the population of Bengal has pushed into this moist and steaming corner of the earth, and nowhere are there such vast rice gardens, such feathery palm groves, and such verdurous orchards of plantain and jack, mango and tamarind, betel, cocoa, and sugar-cane. The Mughl, Muhammadans, and Hindus who people this countless host of marshy islets, dispute possession with crocodiles, tigers, and snakes. The Sunderbans and the Megna flats team with these; and the wood-cutters never return from their yearly expeditions without having paid a tribute of life to the savage animals. Everything and everybody in this watery world know how to fish and to swim. Almost at every mile of travel you come upon a broad waterway, so that boats

are the universal vehicle; and fish of a thousand kinds, some parti-coloured, some monstrous in size, some poisonous, some delicious,—the hilsa, the silon, the koral, and the pangas,—feed beast and man alike in the aquatic desert. The very leopards devour finny food, and even swim the khals, while huge crocodiles crawl forth into the orchards, and watch for the children fetching water and the herdsmen at the ferries. It is a land of strange swooning sounds, of sweeping tempests, and sudden dislocations of earth undermined and carried off by the rushing rivers. There is an occasional thundering noise heard here called the Barisal guns, and to this day nobody knows its origin. A well-to-do landowner will wake up to find his property wafted away by the Megna or the Madhumati to the other side of the creek; and others, who have painfully constructed valuable tanks for fresh water, see a single wave of the dreaded 'bore' sweep into the hollow and spoil it for ever. Such victims of nature in the Sunderbans are styled nâdi-bhanga lög, or 'river-broken people'; but for the most part the enormous population of these Indian swamps fares prosperously, growing betel-nuts for half Asia, catching fish for Calcutta, weaving reed-mats and covers for the boatmen of the Ganges, and producing vast crops of paddy and sugar-cane. They are, on the whole, a gentle and simple people, largely Muhammadan in creed. At new and full moon the 'bore' comes up the Megna in a wall of white water 15 feet high, crushing every boat not drawn up,—a terrible rolling bank of foam, which on account of its speed the people call the shar or arrow.

In this great estuary of the Megna, Shahabazpur, Hattia, and Sandwip are the greatest and the most fertile islands, full of rice grounds and cocoa groves, with a population of nearly 500,000 souls. These are not unfamiliar with the dangers of their marshy home, for there have been at least seven cyclones since 1822; but the islands stand fairly high above the water, and hitherto it is the storm-wind which has wrought most damage, though it generally gives notice of its approach long beforehand by the unnatural hush in the air and the livid colour of the sky. But occasionally there is no warning.

MEHIDPUR, a town in one of the outlying portions of the territories of the Maharaja Holkar, in lat. 23° 9' 30" N., and long. 75° 46' 30" E., on the right bank of the Seepura river, in an angle formed by the confluence of a small feeder. The opposite bank of the river was the scene of decisive victory gained on 21st December 1817 by the British under Sir Thomas Hislop over the Mahrattas under Holkar. The British, crossing the river by a ford just above the town, routed the enemy at the point of the bayonet, taking their camp, with 63 guns and a large quantity of ammunition. The British loss was 174 killed and 604 wounded; that of the Mahrattas was estimated at 3000 men.—*Imp. Gaz.*

MEHINTELAI, 'the mountain without fear,' is a precipitous rock in Ceylon, about 7 or 8 miles to the north-east of Anarajapura, but connected with the ancient city in the time of the kings by one continuous street, along which were conducted the solemn processions of the Buddhist priests. The ascent to the summit is effected by a series of stone steps, about 2000 in number, winding

past the ruins of former buildings, temples, dagobas, and shrines; and on the loftiest peak, which commands a view over the forest country beneath to the very verge of the horizon, there exists one of those prodigious structures of brickwork, under which is deposited a sainted relic of Buddha,—a hair which grew on a mole between his eyebrows. With such veneration have the Singhalese been accustomed to regard this sacred mountain, that every crag has some tradition, and every rock has been scarped into sites for religious buildings, amidst the ruins of which are to be traced the fragments of broken statues and inscriptions in the Nagari character, the most ancient in which the dialect of Pali has been written. The ruins of Anarajapura form one of the most conspicuous objects in the grand panorama which is beheld from Mehintalai. They cover an extent of ground equal to 16 square miles, once surrounded by a wall 64 miles in circumference. The city is to be found on the map of Ptolemy in its proper site and ancient name, Anurogrammum.—*Tennent's Christianity in Ceylon*, p. 336.

MEHKAR, a small town of the Buldana district of Berar, in lat. 20° 9' 30" N., and long. 76° 37' E. It gives its name to a revenue district. It is said to take its name from Meghan Kara, a demon who, after a combat, was put to death by Sharang-dhar, an incarnation of Vishnu.—*Imp. Gaz.*

MEHMAN, a Muhammadan sect, numerous about Hyderabad, Sehwan, and Kurachee, in Sind. They are a quiet race, largely engaged in trade. Their name is a corruption of the Arabic word Momin, a true believer, and was given to the people when they were converted from Hinduism to be Muhammadans. The word, in its fullest signification, is applied to two distinct races of people,—to the Khwaja tribe, and to the Mehman Sayyat (i.e. green, from the Sindi sawo) or Achhra (white), who are followers of Abu Hanifeh. Numbers of them are found in Cutch. In Sind they are employed chiefly in agriculture and breeding camels. Their dress is that of the common Sindi, except that they frequently shave the head, especially when old, and wear the turband; sometimes, though rarely, they adopt the peculiar Sind hat. They have produced many very learned men, and have done much to introduce the religious sciences into Sind. The tribe merits some notice, as it has either abandoned or never adopted the practice common among their brethren in Bombay, viz. that of depriving the females of their pecuniary rights in wills and inheritances. Among the Mehman, the widow and daughter are provided for according to the Koran. Their Pir, or holy men, are the family called Rashid Shahi (descended from one Muhammad Rashid Shah), or the Rohri-wara Sayyids, remarkable for nothing but excessive polygamy. Rashid, the founder of the house, took unto himself thirty-two wives (instead of four), and justified the practice by the usual sophistical arguments of the Sufi order to which he belonged. The Sindi divines pronounced his tenets to be heretical, and his conduct damnable. The Mehman, however, did not object to it, and still reverence his descendants. The Mehman in Sind has his own handwriting character; in Cutch he uses the Gujerati. Altogether the Mehman are a respectable race, though they have acquired a bad name by their rapacity in dealing with strangers; and

Wadho Mehman (a great Mehman) in Sindi means a miserly usurer.

In the Kurachee district they take their tribal names as given below, principally from their original places of abode. The Khwaja are of the Shiah sect, and call themselves followers of Khwaja Suliman, Farisi. Their tribal names are

Akhoond.	Hudokut.	Khebrana.
Bandroo.	Katiyar.	Khwaja.
Kussabi.	Patoli.	Surha.
Loosi.	Puggir.	
Mirzâpori.	Qazi.	

—*Burton's Scinde*, p. 247.

MEHMANDAR, from the Persian word Mehman, a guest, means a host, but is the term applied to a person appointed on the part of a government to attend upon, and supply the wants of strangers while travelling through the country. This custom is most particularly observed towards all ambassadors from foreign powers. The provision thus furnished is called Soorsat; and in Persia it forms one of the most grievous parts of the saderat, or irregular taxes; for it is claimed not only by strangers, but by all great men, or messengers travelling on the part of the king, and is levied with extreme severity. Usually on his arrival at a town or village, the mehmandar sends for the mayor, the Ket-Khuda, to whom he briefly gives his orders to furnish the articles required, and, by way of commencement, installs himself in the best house in the place.—*Ferrier, Journ.* p. 47; *Fraser's Khorasan*, p. 88.

MEHMASANI, a Baluch tribe who have branches in Seistan and the hills of Luristan.

MEHNDI, HIND. Lawsonia alba, the henna of the Persians, an important dye-stuff, and the distilled water of its flowers is used as a perfume. The Muhammadan women in Asia use the shoots for dyeing their nails red, and the manes and tails of horses are also stained red in the same manner. The soles of the feet also are stained with the red juice of the Mehndi. Mehndi is also a term applied to Elsholtzia polystachya. Jangli mehndi is Ammannia auriculata, Vilayati mehndi is Myrtus communis.

MEHNDI, or Jahez. HIND. A Muhammadan bride's trousseau.

MEHRA, a forest in Hazara which has as its timber trees juglans, cedrela, Pinus longifolia, fraxinus, quercus, yew, cerasus, olive, buroongi, umloke, mulberry, pyrus, Cedrus deodara.

MEHRAWAN, a brother of Ravan, who, in the war of Lanka, by a surprise, took Rama and his brother Lakshmana prisoners, and carried them to Patala (or hell), from whence they were released by Hanuman as they were about to be sacrificed.

MEHR GYA, a product imported from China into India through Tibet, and sold in Lucknow, Nagpur, and Hyderabad at from Rs. 130 to 150 per tola. It is supposed to be the Ginseng drug, called by the Chinese Jin-san, Liau-san, Hwang-san, Shin-tsan, Kwan-tung-jin-san, and Kwan-si-jin-san.

MEHTAR. HIND. A hereditary village officer; a man who follows the lowest menial offices, a sweeper, a scavenger. The term originally means a prince, and is used ironically. In Cuttack, the mehtar is sometimes a slave.

MEI-JIN: CHIN. A matchmaker, a go-between, a middleman.

MEI-KONG, a river, flows through the eastern

side of Laos and Cambodia. It is called by the Chinese Lan-tsang or Lan-chiang. It rises about lat. 33° or 34° N., in the Kouen Lun range, near Koko Nor. Its two branches have their confluence about lat. 30° N., north of Cha-mon-to or Kiam-do, and it then traverses the provinces of Chra-ya and Ri-ang-ka before entering Yun-nan. It is the longest of all the Indo-Chinese rivers. Its course has been traced from its source in Eastern Tibet, where but a single narrow ridge separates it from that of the Kinsha-kiang or Yang-tze-kiang, the two streams flowing for a long distance in parallel meridional valleys along the eastern range of the Tibetan plateau. In this peculiar feature of long parallel trenches and mountain ranges is to be sought the key to the little understood geography of the great Siamese Peninsula system. It is said to be more than 2200 miles long. The Lusidi says—

'See thro' Cambodia Meikon's river goes,
Well named the Captain of the waters, while
So many a summer tributary flows
To spread its floods upon the sands, as Nile
Inundates its green banks.'

In the Irawadi and Mei-kong basins there are remnants of tribes strongly distinguished from the dominant races, and tending, with the evidence of language, to show that the ethnic history of Ultra-India is very ancient, and has undergone repeated revolutions. One of the most remarkable is the Ka-Kyen. They are described as being in their appearance not Mongolian, and totally different from the surrounding Shan, Burmese, and Chinese races. The Moi or Kamoi, on the opposite side of the Mei-kong, are said to be black savages, with Negro features; they occupy the broad expansion of the Annam chain towards Kamboja, and appear to extend northwards along these mountains, marching with the Lau on the westward. The Kambojans style them Kha-men. They are the Ko-men of Leyden and the Kha-men of Gutzlaff. On the same side of the Mei-kong basin, but towards the sea, between lat. 11° and 12° N., a hill tribe, called Chong, preserve more of the ancient Australo-Tamilian character than the surrounding tribes. In the Chong, the hair, instead of being stiff or harsh as in the Mongolian, Tibetan, and prevalent Ultra-Indian and Malaya-Polynesian races, is comparatively soft, the features are much more prominent, and the beard is fuller.—*Bouring's Siam*, ii. p. 28; *Logan, Journ. Ind. Arch.*

MEI-THEI-LEI, the valley of Munipur; Burmese call it Ka-the, the Bengalis Moglai, and Assamese Mei-thei-lei.

MEKHITAR, born at Sebaste in Cappadocia A.D. 1676, was the founder of the order of the Mechitarists, and reviver of Armenian literature. In 1691 he entered an Armenian convent at Sebaste, and subsequently became secretary to Archbishop Michael. He secretly became a proselyte to the Romish Church, and in 1700 openly preached submission to the Pope. To escape the anger of the people, he fled to Smyrna, and to the Morea, then under the dominion of Venice. On the conquest of the Morea by the Turks, he went to Venice, where he founded a convent, set up a printing press, and published numerous Armenian translations of the best European works, an Armenian grammar and dictionary, and in 1733 an Armenian Bible. He died 1749.

MEKRAN, sometimes called also Kej Mekran, a province of Baluchistan which extends from near Cape Jashk, in lat. 25° 38' 3" N., long. 57° 46' 13" E., to the Hingol river, and the river of Las, reaching to Cape Maize, in lat. 24° 51' N., and long. 66° 35' E., a distance of 480 miles.

Mekran has Persia on the west, the provinces of Las and Jhalawan on the east, Persia, Afghanistan, and the Kharan district on the north, and the Arabian Sea on its south. Its western portion is under Persian rule, and its eastern under the Khan of Kalat; the boundary being at long. 62° E. Its name is supposed to be the combination of two Persian words, Mahi-khoran, Ichthyophagi. It was also known to the ancients as Karmania altera. From Cape Jashk on the Purali river, a distance of 500 miles, the shores of the coast of Mekran are washed by the Arabian Sea. The country is one vast arid and sterile waste, with high mountains rising at the back wholly destitute of both trees and vegetation.

It is a district of hills and valleys, in parallel ranges running east and west, but almost rainless. On many of the hills are beds of clay, 50 to 100 feet thick, containing fossil shells of the miocene formation. Between Gwadar and Ras Kuch are many of the mud volcanoes called Chandr-kup, and near Ras Jashk is a hot spring with temperature of 128°. One group of the Chandr-kup, consisting of three cones, is a mile to the W. of Huki and about 60 miles from Saumiani. The other group, consisting of two cones, is about 10 miles N. of Ormara.

Alexander the Great, after his conquests in N.W. India, returned through this province; and the sufferings of his army from want of water and provisions were intense. There are, in Mekran, cyclopean structures raised by some unknown prior race. They are called Ghorbasta or Ghorband, and bear a resemblance to the cyclopean remains of Europe. They are built across ravines to form tanks, and on the declivities of mountains to distribute the water. They have been constructed by an agricultural race, who on entering it had foreseen that the country would not otherwise support them. The race is supposed by Dr. Cook to have been a people with kindred habits to the Pelagi. Arrian says that the fishermen on the coast of Gedrosia lived in small huts, whose walls were composed of sea-shells piled upon each other, and their roofs of fish bones, the back-bones serving instead of rafters. But the present population of Mekran is formed of many different tribes and independent chiefs, of whom the Baluch are the most numerous: a middle-sized race of men, spare, muscular, and active, and armed with a matchlock, sword, shield, and dagger. The common language of the country is a corrupt Persian, mixed with Sindi, and the generality of the Baluch are Muhammadans of the Sunni persuasion. Those of the centre countries reside mostly in towns; those of the lower countries are scattered over the plains, in hamlets of eight or ten huts, built of the branches of the palm, and covered with mats; but the Narhui race of Bunpur live in tents of black hair, and remove from place to place as their flocks or agriculture require their attention. The women of Mekran appear freely in public.

The Gitchiki is the most numerous tribe. About half the population is of a sect of Muhammadans called Zigger. The maritime and fishing

population of the little ports on the coast of Mekran, from Sanmiani to Charbai, are denominated Med, and comprise four divisions,—the Guzbur, Hormari, Jellarzai, and Chelmarzai.

Its natives on the sea-coast are of larger proportions and blacker complexions than the northern ones, probably owing to their frequent intermarriages with the Negroes of Muscat and Arabia. The Mekrani are a puny and delicate race when compared to the Baluchi or Brahui, owing perhaps to the climate, and their sensual lives, for which both sexes are notorious; they likewise drink great quantities of an intoxicating beverage made from fermented dates. The women of Mekran are usually very ugly, and proverbially unfaithful; they set no bounds to the gratification of their passions; at an early period of their lives they are tottering under decrepitude and premature old age.

The Biruvi tribe dwell near Bela; they sell their children when in want. They are better looking than the Sidi, and, as they speak Sindi, Hindus prefer them as domestic servants. — *Kinneir's Geog. Memoir*, p. 202; *Pottinger's Travels*.

MELA. HIND. A fair; gathering of the Hindus partly for business, partly for religious purposes. At some places the visitors number hundreds of thousands. A great religious gathering known as Magh-Mela is held at the junction of the Ganges and the Jumna at Allahabad. It is particularly crowded in the Khumb or twelfth year. The number of visitors is estimated at from 1,000,000 to 2,000,000.

MELALEUCA (from μέλας, black, and λευκός, white), a genus of plants belonging to the natural order Myrtaceæ. *M. ericifolia*, *Smith*, is a tall shrub of S.E. Australia, yields a comparatively large quantity of cajaput oil, and is of importance for consolidating muddy shores. *M. genistifolia* and *M. linarifolia* can be grown in swamps; *M. parviflora*, *Lindley*, is valuable for fixing coast sands; *M. styphelioides*, *Smith*, yields a hard, close-grained timber; *M. squarrosa* and *M. trichostachya*, *Lindley*, are valued for growth in swamps. *M. styphelioides*, *Smith*, a tree 60 feet high, and 2½ feet in diameter, of E. Australia. Its timber hard, close-grained, and stands well in damp situations. It is adapted for swamps, and timber never known to decay. All these might be introduced into India. The tea tree of the Australian colonists is a species of *Melaleuca*; and *M. leucadendron*, *Linn.*, is the paper bark tree of N. S. Wales. — *Von Mueller*.

MELALEUCA CAJAUPUTI. *Roxb.*

M. minor, *Smith*, *D.C.*

Thit-tha hpu tshi, *Burm.* | Kayu-puteh, . *MALAY.*
Cajaput tree, . . *ENG.*

The Oil.

Kayu-puteh-ka-tel, *HIND.* | Kayu-puteh-tailam, . *TAM.*
Kayu-puteh-miniak, *MAL.*

The Malays give the name of Kayu-puteh both to *M. cajaputi* and *M. leucadendron*. It is a small tree with an erect but crooked stem, covered with thick, rather soft, light-coloured bark; branches scattered, with slender twigs, which droop like those of the weeping willow. It is a native of the Molucca Islands, especially of Boeroe, Maniye, and of the S. of Borneo. According to Dr. Mason, is indigenous in the Karen forests of the southern provinces of Tenasserim, but Dr. Mason has not observed it north of the valley of the Palouk river, about lat. 13° N. The leaves are

collected on a warm, dry day in autumn, and placed in dry sacks, in which they become heated and moist. They are then cut in pieces, macerated in water for a night, and then distilled. Two sackfuls of the leaves yield only about 3 drachms of the oil. This is clear and limpid, of a light green colour, very volatile, diffusing a powerful odour, having a warm aromatic taste, something resembling that of camphor, followed by a sense of coolness. Sp. gr. 0.914 to 0.927; soluble in alcohol. When the leaves are distilled with water, a light and colourless oil first comes over, and then a green-coloured and denser oil, which, with less odour, is more acrid. It is sometimes adulterated with the oils of rosemary and of camphor; it is diffusible, stimulant, antispasmodic, and is used externally in rheumatism. — *Royle*; *Crawford*; *Morrison*; *Com. Desc.* p. 9; *O'Sh.*; *Roxb.*; *Mason*; *Voigt*.

MELALEUCA LEUCADENDRON. *Linn.*, *D.C.*, *Roxb.* A tree of the Moluccas, of Malacca, and of the N. and E. of Australia, as far as lat. 34° S., where it attains a height of 80 feet, with a stem up to 4 feet in diameter on tidal ground. It can be utilized for such areas with great advantage, for subduing malarian vapours in salt swamps where no Eucalyptus will live. Its bark protects it against conflagrations. The wood is fissile, hard, and close-grained; is well suited for posts, ship-building, various artisans' work, resists the attacks of termites, and is almost imperishable under ground. — *Von Mueller*.

MELANESIAN, a race with frizzled hair; the Malaysians have straight hair. The Melanesian languages resemble Hebrew, Arabic, etc., in their power to form a causal verb. In Maori, the prefix 'whaka' gives to any word this causative sense, viz. ako, learn, whaka ako, teach. In Nengone, 'a' is the prefix, as puja, rise; apujani, elevate or raise. In Bauro, ha, hai, hau are prefixes, as surutai, rise; hasurutai, raise. In the New Hebrides there are several languages,—the Mai, the Api with two dialects, the Ambrym, Pama, Van-Marama. The Mota is spoken in Banks Islands; in the Solomon Islands are the Bauro, Uiana, Mara-masiki, Mahaga, and Anudha; and in New Caledonia, the Yehen. — *Bikmore*; *Bishop Patteson*.

MELANORRHÆA USITATISSIMA. *Wall.*
Theet-see, . . . *Burm.* | Kheu of . . . *MANIPUR.*
Theet-see-yaing, . . . | Lignum vitæ of . *PEGU.*

This black varnish tree or Burmese varnish tree grows from Manipur southward to Tavoy, thus extending from lat. 14° to 25° N. At Kubbu, an extensive valley elevated about 500 feet above the plains of Bengal, and 200 miles from the nearest seashore, it attains its greatest size, some of the trees having clear stems of 42 feet to the first branch, with a circumference near the ground of 13 feet. It forms extensive forests, and is associated with teak and sal, and also with the gigantic wood-oil tree, a species of *Dipterocarpus*. It is in full foliage during the rainy season, which lasts from the middle of May until the end of October. It is rare in the Irawadi valley, but common in the forests east of the Sitang river, particularly south-east of Sitang town. It is very common above the parallel of Tounghoo, and grows there to a girth of six feet, and it is plentiful in the Tounghoo and Prome forests. Its wood is the lignum vitæ of Pegu,

MELANTHESA RHAMNOIDES.

and is of a dark red colour, or a dark brown, of dense structure, and of particularly fine close grain. It is very strong, durable, hard, and tough, and is used by the Burmese for tool-helves and the stocks of their wooden anchors, etc., for the anchors of the Burmese boats are always of wood to which stones are lashed, the flakes being of Pyeng Khado, and the stocks of Theet-see or of some other heavy wood. Its great hardness and weight prevent its being employed in house-building, but it would answer for sheaves or block-pulleys, for railway sleepers, gun-stocks, rammer heads, and helves. It exudes a black oil, which is used by the Burmese as a varnish. The collecting season lasts from January to April. The oil is obtained by cutting a hole in the tree, about 3 feet from the ground, the cut being about 4 or 5 inches deep into the trunk of the tree. The base is hollowed out to retain the oil. The whole of the hollow is cleared with fire, after which the oil exudes, and is collected in the hollow at the base, and removed at intervals. The oil is thus extracted year after year, and sometimes there are two or three holes in the same tree. The oil is allowed to settle, on which the clear part separates from a thick portion, which is called the 'gand.' If a growing tree is cut down, and cut to pieces, the oil exudes and concretes on the stem and end of the pieces, very much resembling camphor, with an aromatic smell also. It is said that a tree yields from 3 to 5 maunds yearly, i.e. 240 to 400 lbs., value Rs. 10 per maund, and the same tree will yield oil for several years. It is a good balsamic medicine, and very generally used as a substitute for copaiba. As a varnish it is a preservative to wood, to which it gives, with little trouble of application, a fine surface polish; it becomes, however, white and milky if exposed to wet. In Manipur it is used for paying river craft and for varnishing vessels designed to contain liquids. In Burma, almost every article of household furniture intended to contain either solid or liquid food is lacquered by means of it. The process consists in first coating the article with a layer of pounded calcined bones, after which the varnish is laid on thinly, either in its pure state or variously coloured. The most difficult part consists in the drying. It is also much employed in the process of gilding; the surface, being first besmeared with this varnish, has then the gold leaf immediately applied to it. Finally, the beautiful Pali writing of the Burmese on ivory, palm leaves, or metal, is entirely done with this varnish in its pure state. — *Artillery Records; Voigt; Drs. Wallich, Pl. As. Rar., McClelland, Mason, Royle, Brandis; Cul. Cat. Ex., 1862.*

MELANTHESA RHAMNOIDES. Retz.

Phyllanthus vitis Idæa, R. | Ph. rhamnoides, Retz.
Surasaurini, . . HIND. | Pavala pula, . . TAM.

A shrub of the Coromandel coast. It has an attractive appearance from its bright red fruits, which are used medicinally. — *Wight.*

MELANTHESA TURBINATA. R. W.

Ph. turbinatus, Roxb. | Ph. simsiannus, Wall.

A shrub of the Peninsula of India, where it is employed in medicine. — *Wight.*

MELANTHIUM COCHIN-CHINENSE. Smith.

Tien-men-tung, CHIN. A trailing plant of Cochin-China and China. The tubers have the properties of squills. — *Smith, M. M. C.*

MELEAGRINA MARGARITIFERA.

MELASTOMA MALABATHIRICUM. L.

Buro-phutika, . . BENG. | Kadali, MAL.
Myest-pyal, . . BURM.

The Melastomads are an extensive natural order of polypetalous exogenous plants nearly related to Myrtaceæ. This shrub grows in the Moluccas, Sumatra, Cochin-China, Malay Islands, in both Peninsulas of India, in Orissa, Jellalore, Khasya mountains, and Nepal. Its flowers are large and red, and it fruits the whole year. Its fruit is edible, and is also employed for a purple dye to cotton cloths. It is one of the black-dye plants of S.E. Asia. Its calyx opens like a lid, and bears a fruit which in taste and flavour strongly resembles the blackberry of temperate regions. The blossoms of the shoe-flower plant are used by the Chinese to dye leather black; the juice of the cashew tree gives a black to linen, and the fruit of this melastoma affords a black dye. In the Tenasserim Provinces, this species is a common weed. In Bengal the same plant is cultivated as a garden flower, but it does not compare with the wild plant of Tenasserim. Other species — *amœnum, decemfidum, and glaucum* — grow in Tenasserim, Penang, and Singapore. — *Roxb.; Mason; Voigt; W. III.*

MELEAGRINA MARGARITIFERA. Lam.

The pearl oyster, which furnishes the finest pearls and finest nacre. When secreted in the globular form, it is the pearl; when on the inner walls of the shell, the nacre. The pearl oyster is met with in the Persian Gulf, Arabian coast, in the Japanese and American seas, on the shores of California, and near the islands of the South Seas, Bay of Bengal, Gulf of Manaar, Ceylon, and near the mouth of the Indus. Pearls are artificially produced by the Chinese, introducing beneath the mantle a grain of sand, around which the nacreous substance is thrown. Pearl mussel spat or spawn is thrown out in some years in great quantities, perhaps similar to the edible oyster of Britain, which threw much spat in 1849, and not again until 1860. The spat floats in and on the water, and attaches itself to anything with which it comes in contact, attaining, it is said, the size of a shilling in six months. In its seventh year the pearl mollusc attains its maturity as a pearl producer, pearls obtained from a seven-year oyster being of double the value of those from one of six years of age. In oysters under four years the pearls are not of any mercantile value, and after seven years the pearls deteriorate. Those from mussels of about four years old have a yellow tinge, and the older kinds a pinky hue, but pearls of a red and even black, as also with other colours, are also met with. Baghdad dealers prefer the round white pearl; those of Bombay esteem pearls of a yellow hue and perfect sphericity; while other nations choose the gems with a rich pink colour. There seem reasons to believe that pearl mussel spat is migratory, forming colonies at places remote from the parent bed. Between the years 1732 and 1746, there was little pearl fishing at Ceylon, and there were long suspensions between 1768 and 1796, between 1820 and 1828, and between 1837 and 1854, and during the last period the expenses were covered. The late Dr. Kelaart is stated to have been of opinion that the molluscs are capable of leaving their shells. In the Persian Gulf the pearl banks extend 300 miles in a straight line, and the best beds are level and

of white sand, overlying the coral in clear water, and any mixture of mud or earthy substance with the sand is considered to be detrimental to the pearl mollusc. In the Persian Gulf there is both a spring and a summer fishery, and as many as 5000 boats will assemble from Bahrein and the islands, and continue fishing from April to September. The net revenue from that of Ceylon, from 1828 to 1837, was £227,181. Each boat is manned with a crew of twenty-three persons, ten of whom are divers, two divers to each stone, of which there are five in the boat. When fishing for Government or for a speculator, those receive three-fourths of all the produce. Pearls are obtained also from the *Avicula margaritifera*, the *Unio margariferus*, the common oyster, *Anodonta cygnea*, *Pinna nobilis*, *Mytilus edulis*, and *Spondylus gæderopus*. Pearls found in *Arca* nose are violet, and in *Anomia* cepæ purple. — *Cornhill Magazine*, August 1866.

MELEAGRIS MEXICANA is the wild turkey of Mexico. It had been domesticated by the people of America before the discovery of that continent, and from it the domestic breeds have been derived. But the other wild species of America crosses with it. English turkeys are smaller than either wild species. The better known breeds are the Norfolks, Suffolks, white and copper-coloured, or Cambridge. In India the breed of turkeys has greatly degenerated in size, is wholly incapable of rising on the wing, is of a black colour, and its long pendulous appendages on the beak are enormously developed. — *Darwin, Species*. See Pavo.

MELEGUETA PEPPER, Guinea grains, grains of paradise. This pepper is the seed of *Anomum grana-paradisii*, a native of the coast of Guinea, but cultivated in the West Indies.

MELETTA VENENOSA. *Cuv. et Val.* Some specimens of *Clupeonia perforata*, procured by W. T. Lewis, Esq., Assist. Resid. Councillor, Penang, were accompanied by the following account of a phenomenon witnessed by that gentleman during his official residence at Bencoolen:—In 1822, great numbers of what was supposed to be an edible species presented the unusual appearance of having red eyes. Many natives, after having eaten these fishes, were suddenly attacked with violent vomiting, which, in cases where remedies were not immediately applied, was known within an hour to terminate fatally. At the same time, such of these fishes with the ordinary silvery eyes were, as formerly, eaten with impunity. This phenomenon recurred at Bencoolen during the seasons of 1823 and 1825, but not of 1824. It was surmised that the poisonous fishes had fed on a gelatinous substance which at that season exudes from the beautifully-coloured coral reefs on that part of the coast of Sumatra. It is, however, more probable that the poisonous fishes were shoals of *Meletta venenosa*, an inhabitant of the Seychelles and the neighbouring seas, which happened in those seasons to visit Sumatra. M. Valenciennes describes this fish as being poisonous, and producing effects as noted above. In the Straits of Malacca, *Clupeonia perforata* has never been known to produce bad effects.

MELGHAT, a hill tract in the Ellichpur district of Berar. It is a section of the Satpura range, extremely rugged, and broken into a succession

of hills and valleys; the main ridge rising to 3987 feet above sea-level at Bairat. The tea plant thrives in Melghat. In this tract are situated the forts of Gawilgarh and Narnala, and the hill station of Chikalda, 3777 feet above the sea-level.

MELIACEÆ. *Juss.* The bead tree tribe of plants, with the genera *munronia*, *melia*, *azadirachta*, *mallea*, *amooria*, *milnea*, *walsura*, *monocyclis*, *sphærosacme*, *dysoxylum*, *epicharis*, *sandoricum*, *lansium*, *heynea*, *xylocarpus*, and *aglaia*, in the E. Indies, Java, the Moluccas, Assam, the Khassya, Nepal, the two Peninsulas, Ceylon, Sumatra, and Bengal. Species of the order have bitter, tonic, and astringent qualities, and in some non-Indian species so strongly developed as to be dangerous. *Azadirachta indica* bark is used in fever, and the bitter oil of its seeds externally; the pulpy fruit of the *Lanshe* is esteemed in the Indian Archipelago, and that of *Milnea edulis* is eaten in Sylhet, where it seems to resemble the leeches and longan of China. — *Voigt*; *Crawford*.

MELIA AZADIRACHTA. *Linn., Roxb.*

<i>Aria bepou, Rheede.</i>	<i>Azadirachta indica, Juss.</i>
Kohomba in . . . CEYLON.	Margosa tree, . . . ENG.
Lien-tze, . . . CHIN.	Nim, . . . HIND.
Ku-lien-tze, . . . "	Veypan, . . . TAM.
Kin-ling-tze, . . . "	Yepa, . . . TEL.

An ornamental tree, very much planted in avenues and groves, common throughout India, Burma, in Hu-peh in China, and in Ceylon, generally in a planted state, though occasionally in the forests; it grows well in almost any soil in the plains, and occasionally attains very large girth. The wood is very like mahogany, beautifully mottled, hard, and heavy; it is much used for cart-wheels and ordinary building purposes, and old trees yield a first-rate furniture wood, and which is much used in Bengal in the manufacture of idols, as it is so bitter that no insect will attack it. The bark is very bitter; the leaves beaten into a pulp are externally applied with great efficacy in cases of pustular eruptions, in rheumatism, and for bruises and sprains; and the leaves are useful in keeping away the boring-worm from books. The dried leaves are often added to common poultices by the natives, and are said to act in preventing glandular tumours from coming to maturity. The fruit yields an acrid bitter oil, which is exported from the Madras Presidency; it is said to have valuable antispasmodic properties, and is anthelmintic and stimulant. It is used by the natives as a remedy in leprosy, and as a liniment for rheumatic affections; it is obtained by boiling or expression, is of a deep yellow colour, and is used for burning in lamps. The bark yields a gum which is said to be a stimulant. A toddy called *veypan khalloo* is obtained from young trees. — *Beddome, Fl. Sylv.*

MELIA AZEDARACH. *Linn., D.C., Roxb.*

Kachen? or Jek of BEAS.	Luna-midella, . . . SINGH.
Bavona or Bayvena, CAN.	Male vembu, . . . TAM.
Zouzalacht, . . . EGYPT.	Vepa manu, . . . TEL.
Lilac or bead tree, ENG.	Turka vepa, . . . "
Nim, . . . HIND.	Seed—Hab-al-ban, . . . "

This species grows in Syria, the north of India, and in China. It is a handsome ornamental tree, attaining a height of about 40 feet, and a quick grower; it produces its sweet-scented, lilac-like flowers in the hot season. It is found sparingly as a planted tree throughout the Madras Presidency, Bengal, Mysore, Bombay, Africa, and has

MELIA BUKAYUN.

been naturalized in the south of Europe; the wood of older trees is handsomely marked, rather durable, and in use for furniture, but is apt to split. The seeds are often strung as beads, and a valuable oil is produced from them. The root is nauseous and bitter, and in use as an anthelmintic.—*Beddome, Fl. Sylv.*; *Thunb. iii. p. 228*; *Roxb.*

MELIA BUKAYUN. *Royle.*

M. sempervirens, Roxb.

Ban,	ARAB.	Persian lilac,	ENG.
Ka-ma-kha,	BURM.	Maha-nimba,	HIND.
Evergreen bead tree, ENG.		Bakayun,	PERSS.
Pride of China, India,		Darakht-i-azad,	

A tree of Nepal, Kamaon, and Persia, with small, fragrant, lilac-coloured flowers. It fruits all the year, being very ornamental when in blossom, and odoriferous. It is common in the Panjab and in the less elevated villages of Afghanistan, and up to 5000 and 6000 feet on the Himalaya. Below Chamba, up to 2800 feet, trees with 12 or 14 feet of girth may be obtained. The wood is yellowish, soft, brittle, and weak, but is bitter and not subject to the attacks of insects. It is a smaller tree than the *M. azedarach*.—*Drs. Stewart, O'Sh., Roxb., Voigt*; *Gen. Med. Top.*

MELIA COMPOSITA. *Willd., W. and A.*

M. robusta, Roxb. | *M. superba, Roxb.*

Nimbara,	MAHR.	Mallay vemboo,	TAM.
Lunu midella,	SINGH.		

A very large, quick-growing, ornamental tree, with smooth dark-brown bark. Common in Ceylon, in Malabar, Wynaad, Coorg, Mysore, South Canara, and other parts of the Madras Presidency. Its timber is very light and cedar-like, and in Ceylon is in use for outriggers of boats and for ceilings; and it is said white ants will not attack it.—*Dr. Gibson*; *Beddome, Fl. Sylv.*

MELIANTHUS MAJOR, frequent at the Cape of Good Hope. The genus derives its name from the copious secretion of nectar in the little depression at the base of the flower. To the natives this juice is a well-known dainty. It should be introduced into India.

MELICA. Roxburgh (i. p. 327) describes four species of this genus of plants,—*diandra*, *digitata*, *latifolia*, and *refracta*. *M. nutans, L.*, is the pearl grass of North and Mid Asia.

MELICOCCA BIJUGA, *Linn.*, has been introduced into India. It grows on the mountains of Central America, and in Jamaica; the pulp of the fruit is of grape taste; the seeds can be used like sweet chestnuts.—*Voigt*; *Von Muller*.

MELICYTUS RAMIFLORUS, the Myhoe tree of New Zealand. Grows to the elevation of 25 to 30 feet, but is of small circumference. Its wood is heavy, and is only used for obtaining fire by friction.—*Bennett's Gatherings*.

MELIDIDÆ, a family of badger-like animals. The following occur in N.E. Asia, viz. :—

Arctonyx collaris, Cuv., Blyth.

<i>Mydaus, Gray, Haradw.</i> | <i>A. isonyx, Hodgson.</i>	
Hog, Hog-badger,	ENG. | Bhalu-sur,
Nepal, Sikkim, E. Bengal, Assam, Sylhet, Arakan.	

Arctonyx taxoides of Sylhet, Assam.

Mellivora Indica, Jerdon.

<i>Ursitaxus inauritus, Hodg.</i> | <i>Mellivora ratel, Blyth.</i>	
<i>Ratelus Indicus, Schinz.</i>	
Bhajrubhal,	BENG. | Tavakaradi,
Biju,	HIND. | Biyu-khawar,

Indian badger, all India.

MELLIVORA INDICA.

Meles albo-gularis, Blyth, *Taxidea leucura, Blyth*, or Tum-pha, and *Meles albo-gularis*, are three mammals of Tibet.

Helictis Nepalensis, Jerdon (*Gulo, Hodg., Blyth*). Oker, NEPAL. Nepal wolverine, Nepal. *Helictis orientalis* is of Malayana.

MELILOTUS, the Trifolium of Linnæus, a genus of the Fabaceæ, plants of Europe and Asia. *M. Italica* is cultivated in the north of India, *M. leucantha* in Bengal, Assam, and the Peninsula. Cows fed on it are said to yield an abundance of milk. *M. officinalis* of Europe is used for flavouring Gruyere cheese. It is the Pai of the Burmese, the Asperuck of Hindustan, and the Zireer of Persia. *M. parviflora* is of Europe and Asia, and *M. sulcata* of N. Africa.

Melilotus alba, Desrousseaux, Kabul clover or Bokhara clover. A fragrant biennial herb of S. Europe, N. Africa, and Central Asia. This plant attracted notice in Ireland. It is nearly allied to *M. leucantha*, and therefore not a true clover. It grows so freely as to yield in the season five or six cuttings of green herbage, from which, it is said, a considerable proportion of strong fibre may be obtained; but the committee of the Irish Flax Society stated that the trials made in the steeping this plant were unsuccessful with them. Griffith saw large fields of melilot in the neighbourhood of Ava. Several native and foreign species are grown in India,—*M. arvensis*, *Italica*, *leucanthus*, *officinalis*, *parviflora*, and *sulcata*.—*Griffith*; *Mason*; *Royle, Fib. Pl. p. 298*; *Murray*.

MELIOSMA ARNOTTIANA. *Wight.*

Millingtonia Arnottiana, W. | *Sapindus microcarpus, W.*

A very common large tree in S. India and Ceylon at 4000 feet and upwards; very abundant at Coonoor on the Neilgherries, where it is known as the Huli-makay (tiger-like); grows in the sholas of the Aninallays, and is a most beautiful sight in June when in full blossom, its whitish panicles forming a perfect sheet of flowers over the top of the tree. The heart-wood of very old trees is striped reddish and white, tiger-like; the timber is spongy and light, but is occasionally used for rafters and as firewood. *M. dilleniifolia, Wallich*, grows in Simla, and *M. Wallichii, Planch.*, in the Darjiling Hills.—*Beddome, Fl. Sylv.*; *Brandis*; *Par. Ex., 1878*.

MELISSA OFFICINALIS. *Linn.*

<i>M. graveolens, Host.</i> | <i>M. pohlusa, Opiz.</i>	
<i>M. Corsica, Host.</i> | <i>M. occidentalis, Rafin.</i>	
Buklut-ul-faristum, ARAB.	Mountain balm,
utrujych,	Rain tulsi,
Mekka sabza,	DEKH. | Badrunjbuyeh,
Common balm,	ENG. | Parsi cunjankoray,
	TAM.

The balm plant of Europe and Central Asia. It is sold in all the Indian bazars, and used medicinally.

MELITHREPTUS PACIFICUS, or honey seeker of the South Sea Islands and Sandwich Islands. A diadem of its feathers cost £150.

MELLIVORA INDICA. *Jerdon.*

<i>Ursus Indicus, Shaw.</i> | <i>Ratelus Indicus, Schinz.</i>	
<i>Ursitaxus inauritus, Hody.</i> | <i>Mellivora ratel, Blyth.</i>	
Bajru bhal,	BENG. | Tava karadi,
Indian badger,	ENG. | Biyu khawar,
Biju,	HIND. |

The Indian badger is found throughout the whole of India, from the extreme south to the foot of the Himalaya.—*Jerdon*.

MELLOON, Burmese defeated here by the British Indian army, 19th January 1826.

MELOCANNA BAMBUSOIDES. *Trinius*. The berry-bearing thornless bamboo of Chittagong and the E. Archipelago. It is the Beesha Travancorica, *Beddome*. It grows beautifully erect on dry slopes of hills, height up to 70 feet, circumference towards the base one foot. The fruit is very large, fleshy like an apple, and contains an edible seed. *M. humilis*, *Roeper*, is a more slender and smaller species; *M. Travancorica*, *Von Mueller*, is the Beesha Travancorica of *Beddome*.—*Von Mueller*.

MELOCHIA CORCHORIFOLIA. *Linn.*

Ponnacoo keera, TAM. Tsjerou, . . . URIYA. Ganuka peindi kooru, TEL.

The whole of this plant, with the exception of the root, boiled in oil, is supposed on the Malabar coast to be an efficacious remedy for preventing bad consequences from the bite of a water-snake. —*Hortus Malabaricus*, in *Ains. Mat. Med.*

MELODINUS MONOGYNUS. *Roxb.* Shan-ch'ang, CHIN. A plant of India and China, one of the Apocynaceæ, said to yield an edible fruit.—*Smith, M.M.C.*; *Roxb.* ii. p. 56.

MELOE, a genus of the order of Coleoptera, class Insecta. The species are beetles with large and swollen bodies, and short oval elytra, lapping over each other at the base of the suture. They are sluggish creatures, and feed on various plants, especially the species of ranunculus. When alarmed, they emit from the articulations of their legs an oily, yellow or reddish liquid. *Latreille* maintained that one insect was the Buprestis of the ancients, to which noxious qualities were attributed. The females lay their eggs near the ranunculus and other plants whose flowers are regularly visited by bees. After these are hatched, the larvæ ascend into the flowers, and, attaching themselves to the back of a bee, are carried into the hive. *Dr. C. V. Riley* mentions that the young of all vesicants belonging to the Meloidæ develop in the cells of honey-making bees, first devouring the egg of the bee, and then the honey and bee-bread. They are all remarkable for passing through several larval stages. The young Meloidæ are at first simple larvæ, called triungulins, running actively about, climbing to flowers visited by bees, to which they attach themselves. They have stout thighs and claws, but feeble jaws. Only a few get attached to the proper bees, the others perish. Once in the cell, the creature eats the bees' egg, and then moults and assumes the second larval condition. In this state it is clumsy and little locomotive, and feeds on the honey store. It then becomes a pseudo-pupa, and later a third larva within the partially rent skin, the true pupa stage being still later.

MELOLONTIIDÆ, the chafer group of beetles; they are large; their larvæ feed on grass, the beetles on the leaves of trees, round which they fly in the evening. Under the name of *white grub*, one of the insects injurious to coffee plants, are included the larvæ of various Melolonthidæ, the cockchafers of Ceylon, which do much harm to coffee plantations, young and old, by eating the roots of the trees. *Mr. J. L. Gordon of Rambodde* considered the white grub to be by far the greatest enemy of the coffee trees which the planter has to contend with, as he never knew a single tree recover after their attack; and they destroyed at Rambodde, in

two years, between 8000 and 10,000 trees of fine old coffee. *Mr. Gordon* used to dig up the soil at the foot of the trees, and take out such grubs as he could find.

The larvæ of the moth called *Agrostis segetum* is the very destructive *black grub* of the Ceylon coffee-planters. This pest is about an inch long, and is most abundant from August to October. The caterpillar lives in the ground, but comes out at night to feed, and is very common and injurious. They attack not only coffee trees, but all sorts of vegetables and flowers, and are very destructive to gardens and in the field, as they eat everything that is artificially raised, despising grass and weeds. They generally appear only on certain fields, and will not go over an estate. The insect is not confined to Ceylon; its ravages are well known in India, at the Cape of Good Hope, and Europe, where it injures the grain and beet-root crops. In Ceylon it attacks young coffee trees, gnawing off the bark round the stem just above the ground. Where the trees are very small, they are bitten right off, and the tops sometimes partially dragged under the ground, where the grubs may easily be discovered and dislodged. The damage which they inflict on plantations may be estimated, when it is mentioned that *Mr. Nietner* lost through them in one season, in certain fields, as many as 25 per cent. of the young trees he had put down.

MELON. Under this name several vegetables are known, viz. *Citrullus cucurbita*, *Linn.*, water-melon; *Si-kwa*, *Han-kwa*, CHIN., *Turbuza*, HIND. The water-melon is to be had at the same time as, and grown in a similar manner to, the *Cucumis melo*. The seed should always be preserved from the finest and richest-flavoured fruit, and is better for being three or four years old. The green melon is the finest flavoured, although many of the others are very good. The cause of melons growing finer in the sandy beds of rivers is attributed to the temperature being more equal about the roots than it is in beds in the garden, especially during the night. *Cucumis dudaim*, *Queen Anne's pocket melon*, is a native of Persia, and produces a fruit variegated with green and orange, and oblong, unequal green spots; when full ripe, it becomes yellow and then whitish. It has a very fragrant, vinous, musky smell, and a whitish, flaccid, insipid pulp. *Cucumis melo*, *Linn.*, musk melon, melon; *Kharbuj*, *Kharbuza*, HIND., *Sarda*, *Paliz*, HIND. Native of Jamaica, Persia? and Kabul? but cultivated throughout India. The rock, green, and musk melons are all sown in the Dekhan at the same time,—generally in beds of rivers, where the soil is light and sandy. They are very seldom sown in gardens. The seed is put down in November, three or four seeds together, with as rich manure as can be procured. The plants must not be close together,—a distance of from six to eight feet is generally allowed. They come in about March, and continue until the rains. In Bombay they are in season at the same time, and a second crop is grown during the rains; this is not the case in the Dekhan. In China, liquid night-soils largely used in the cultivation of melons.

Melon seed oil, *Pitcha pusajhum yennai*, TAM., is obtained from the *Cucumis melo*.—*Hogg*; *Voigt*, *O'Sh.*; *Roxb.*; *Riddell*; *Jaffrey*.

MEMBU, the capital of the Abor people, on the borders of Assam.

MEMECYLION, a genus of plants, shrubs, or small trees of the E. Indies. *M. cuneatum* is of the Central Province of Ceylon, at an elevation of 3000 feet; *M. ellipticum*, in the forest between Galle and Ratnapura, at no great elevation; *M. Gardneri* and *M. leucanthum* grow at a height of 2000 to 5000 feet in the Central Province; *M. ovoideum*, in Ambagamowa; *M. obiculare* at Hinidun Corle; *M. parviflorum*, in the Central Province, at 7000 feet; *M. rhinophyllum* and *M. rostratum* at 3000, and *M. sylvaticum* is common in forests at an elevation of 4000 feet. *M. angustifolium*, *W. Ic.*, is common on the banks of Ceylon rivers, up to an elevation of 2000 feet; *M. fuscescens*, *Thw.*, occurs in Ceylon at Kokool Corle, at no great elevation; *M. macrocarpum*, *Thw.*, occurs in Ceylon at Ambagamowa, at an elevation of about 3000 feet; *M. revolutum*, *Thw.*, foliis-coriaceis, has leathery leaves, and occupies Rambodde, 5000 feet; *M. umbellatum*, *Burm.*, called Coracaha by the Singhalese, is very abundant, up to an elevation of 2000 feet. *M. varians*, *Thw.*, of the Ceylon Central Province, at an elevation of 2000 to 5000 feet. There are two varieties, —*M. Wightii*, *Thw.*, *M. amplexicaule*, also a small tree of the Central Province, at an elevation of 3000 to 4000 feet. —*Thw.*; *Wight, Ic.*

MEMECYLION AMPLEXICAULE. *R.*

M. cordatum, *Wall.* | *M. depressum*, *Benth.*, *Rheed.*

A flowering shrub in the forests of the W. coast of India, used in medicine. It is the Nidam shetti of the Maleali. —*Roxb. ii. p. 260.*

MEMECYLION CAPITELLATUM. *Linn.*

Welli-kaha, . . . *SINGH.* | Ali-chettu, . . . *TEL.*

A plant of Ceylon and Coromandel, with small blue flowers. Its ripe berries, Aali pundu, *TEL.*, are eaten by the natives. It is a small bush, common in most jungles on the Coromandel coast; it has much pulp of a bluish colour and of an astringent quality. It is *M. edule*, *Roxb.* —*Ainslie; Thw.; Voigt.*

MEMECYLION RAMIFLORUM. *Lam.*

M. tinctorium, *Kan.*, Iron-wood tree.

Myen-khe-tanyet, *BURM.* | Doedi-gaha, . . . *SINGH.*
Ajuna, Kurpa, . . . *MAHR.* | Kasha maram, . . . *TAM.*
Surpa, | Kayam puvu cheddi, . . .
Kana-yavu, . . . *MALEAL.* | Alaka, Ali-ohottu, *TEL.*

This occurs in Sylhet, the Malay Peninsula, Tenasserim, Coromandel. Mahabaleswar, Kandalla, along the Western Ghats, in the woods about Cochin, common in jungles in the Carnatic. The flowers are small, blue; its leaves are used in dyeing yellow. The wood is brought into Madras for firewood, and a large quantity of the leaves are imported daily for dyeing purposes. Cold infusion of the leaves imparts a yellow dye. A crimson dye is also said to be obtained from them. It is a highly ornamental tree, with deep-green shining leaves; flowers in February and March, of a purple colour, with the calyx beautifully streaked on the inside. It bears its flowers in compound corymbs, which contrast favourably with its shining green leaves. Wood is very strong and tough. Does not yield readily to wet. Is much employed, when procurable of sufficient size, for agricultural implements, cart furnishing, etc. —*M. C. C.; M. E. J. R.; Drs. Mason, Gibson.*

MEMECYLION UMBELLATUM. *Burm.*

M. amplexicaule, *W. & A.* | *M. sessile*, *Benth.*, *W. & A.*
M. cordatum, *Lam.* | *M. tinctorium*, *Wight, Ill.*
M. ramiflorum, *Lam.* | Kora-kaha, . . . *SINGH.*

Under these names Colonel Beddome unites several of the above species. He says the middling-sized tree occurs in all parts of the Madras Presidency and Ceylon, and on the mountains is often a tree of considerable size. Grows in the Kodu Karnal shola, on the Pulneys, at 7000 feet elevation, and the same form occurs on the Neilgherries. The wood is very hard and close grained, and might answer as a substitute for box. In Ceylon the leaves are used in conjunction with the wood of *Morinda citrifolia* and *Casalpinia sappan* for producing a permanent red dye. —*Beddome, Fl. Sylv.*

MEMNON, according to Hesiod and Pindar, was king of Ethiopia. Æschylus said he was son of a Cissian woman, and Herodotus and others say he founded Susa, and led a combined army of Susanians and Ethiopians to the assistance of Priam, his father's brother, and perished in one of the battles before Troy. The Egyptians claim him to be their king Amunoph III., whose statue became known as the vocal Memnon. Memnonia was the name of several towns in Egypt and at Susa, supposed to have been built by Memnon, and there was a tribe of Memnones near Meroe. Memnon has a statue of a highly crystallized sandstone or granular quartz. —*Jameson, Ed. Journ.*, 1819.

MEMPHIS, a city of the Pharaohs. Miar, the town of old Cairo, near Cairo, was built out of the ruins of Memphis.

MEM-SAHIBA. **ANGLO-HINDI**. An English woman, a mistress of a house.

MEN. **BURM.** A Burmese title bearing an ambiguous meaning, applied equally to a king of England, the Governor-General of India, to the king of Burma, and to all the high dignitaries of his provinces.

MEN. **CHIN**. Literally gate, is often used in Chinese to designate a religion. Thus King-Men, the Luminous Gate, is the synonym of Luminous Religion, and in the monument of Si-ngan-fou is used for Christianity. —*Huc's Christianity*, i. p. 52.

MENADO. The tongue of land in the north of Celebes, known administratively under the name of the Dutch Residency of Menado, comprehends all the northern extent of the island, from the bay of Palos in the west to the Cape of Taliabo in the east, and comprises the great bay or arm of the sea of Gunong-tello, which stretches in a westerly direction between the two peninsulas. The Residency includes under its jurisdiction the whole federative states of Minahasa, the small kingdoms of the northern coast, the very extensive districts in the west part of the Peninsula, where Government exercises sway, besides the islands of Sangir and Talaut to the north, as well as the lesser islands of the west coast and the large gulf of Tomini. In 1882, Menado, Minahasa, and Gorontalo had an area of 1267·2 Dutch geographical square miles, with 776 Europeans, 231,357 Indigenes, 2356 Chinese, and 52 others. The Alfouira population are in the elevated and woody parts of Kayeli, Toradja, and Tomeiku. Near Menado is a race called Binteke, strong but intractable, who have hitherto resisted all efforts to improve them. Some of the less civilised tribes

have semi-Papuan features and hair, while in some villages the true Celebes or Bugi physiognomy prevails. The plateau of Tondano is chiefly inhabited by people nearly as white as the Chinese, and with very pleasing semi-European features. The people of Siao and Sangir much resemble these, and Mr. Wallace believes them probably to be immigrants from some of the islands of North Polynesia. The Papuan type will represent the remnant of the aborigines. The languages contain a Celebes-Malay element and a Papuan element, along with some radical peculiarities derived from the Siao and Sangir Islands farther north, and therefore probably derived from the Philippine Islands.—*J. I. Arch.; Wallace; Horsb.*

ME-NAM, a river of Cochin-China, has its source in the mountains of Yun-nan in China. It receives many tributaries in its course, divides itself after receiving the waters of the Phitsalok branch, and again unites above Bangkok, where, with a depth of from 6 to 8 fathoms, it rolls its magnificent tide into the Gulf of Siam. Me-nam in Siamese means mother of waters. The old name is Me-nam Chan Phya. It is only navigable to a distance of about 30 leagues. It rises and falls like the Nile, the Indus, the Ganges, the Brahmaputra, and the Irawadi. There are 20 waterfalls between Zimmar and Bangkok. It has a course of 453 miles, or 800 miles including its windings. The town of Bangkok is 27 miles from its mouth, on an islet, in lat. 13° 58' N., and long. 100° 34' E.—*Bewring's Siam.*

MENANDER. About the 1st century B.C., a Scythian race swept southwards from the frontier of China, and submerged Bactria. The Macedonians were driven from Kabul into the Panjab. The Greek captain Menander, and afterwards Apollodotus, passing through the Khaibar, overran the valley of the Indus, and reduced Gujerat and Kashmir. The Greeks were afterwards crushed between the advancing Scythians and the great Indian empire of Magadha. Of all the kings who followed Eukratides, Menander and Apollodotus alone are mentioned by classical authorities.

MENANGKABAU, a state in Sumatra, the original country of the Malay race.

MENAVAN, MALEAL, pronounced also Menon, corruptly Menewar. The village or district accountant in Malabar; according to some, the appropriate designation of a Maleala Sudra, Nair writer or accountant; same as the Karnam of the Tamil race.—*Wilson's Glossary.*

MENCIUS, known in Europe, is the Chinese philosopher Meng-tze, who died about B.C. 317. See Meng-tze.

MEND. **HIND**. A dam, a dyke, the boundary of the village lands or of the lands of a village.

MENDHI or Henna. **HIND**. *Lawsonia inermis*. Its leaves are used as a dye for the beard and hair, and for fingers and for horses' tails; they are also given to goats and sheep, etc., when attacked by itch.—*Powell*, i. p. 452.

MENDHI. **HIND**. A Muhammadan bride's paraphernalia.

MENDICANTS. Mendicancy in India, Burma, and Tibet, amongst Muhammadans and Hindus and Buddhists, is largely associated with their religious views, and begging is supposed in a great measure to be honourable, a badge of religion, and the honoured occupation of old age. Some of these religionists are professed ascetics; those of the

Hindu faith wander about in the scantiest of garbs, with profusion of ashes on their forehead, beads round their necks, and devotional phrases and verses in their mouths. They visit the most pious of their respective castes and sects, and extort money. The fact that so large a number are professed mendicants is an important one, both from a social and political point of view. Poverty is an evil in any land; but when a large portion of the populace of any country try to remedy the evil by systematic begging, then the evil to the whole land is rendered tenfold worse. Hand in hand with vagrancy go half the crimes that sully human nature.

Amongst Hindu mendicants are the Vaishnava Byragi, Saiva Sanyasi, Ramanaya or worshippers of Rama; Nanik Panthi, followers of Nanik; Kabir Panthi, Sukhee Bhava, Khelanta Jogi, Kanuphata Jogi, Shurevuri, Aghora Panthi, Brahmachari, etc. They have their various forms of austerities. Mr. Ward was informed that in his day scarcely less than an eighth part of the whole population abandoned their proper employments, and lived as religious mendicants by begging. Many of the more enlightened Hindus and Brahmans hold these mendicants in the utmost contempt, and would consider their being compelled to work as a great blessing conferred upon the country.

The Abdhut is a Hindu mendicant of the Vaishnava or Saiva sect. The term is from the Sanskrit Avadhuta, and this class are supposed to have shaken off the trammels of humanity.

The Akas-mukhi, from Akas, the sky, and Mukha, the face, are religious ascetic mendicants among the Hindus, who hold up their faces to the sky till the muscles of the back of the neck become contracted and retain position.

The Atit religious mendicant is usually a Vaishnava.

Gosain mendicants worship Siva in the form of the lingam, Sanyasi worship Vishnu; Sanyasi mendicants and the ancient ascetic Viragi are followers of Ramanuj. Mendicants carry water from the Ganges to a great distance. The four orders of Hindu life are not now given effect to. The Bhikshuna, the mendicant of the fourth order, may now have a wife and family.

Jogi, ascetic religious mendicants, are followers of the Saiva doctrines taught by Gorakhnath. They have several sections. But, in popular acceptance, Jogi is a term of almost as general application as those of Sanyasi and Bairagi, and the vagrant mendicants who so style themselves usually follow the dictates of their own caprice as to worship and belief, often assuming the character as a mere cloak for obtaining a lazy livelihood. Indeed, the Jogi, more than other religious mendicants, add to their religious personification more of the mountebank character. Most of the religious mendicants deal in fortune-telling, interpretation of dreams, and palmistry; they are also often empirics, profess to cure diseases with specific drugs or with charms and spells; but besides these, the Jogi is usually musical, and plays and sings. He often travels with a small bullock, a goat, or a monkey, whom he has taught to exhibit tricks. The dress of the Jogi is generally a cap and coat or frock of many colours. They profess to worship Siva, and often carry the lingam, like the Jangama, in their cap. All classes and sects assume the character, and even

Muhammadan Jogi are not uncommon. The Hindu Saringihar Jogi carry a Saringi or small fiddle, with which they accompany their songs; these are usually Bhasha stanzas on religious or mythological topics, amongst which are stanzas ascribed to Bharttrihari, and a Puranic legend of the marriage of Siva and Parvati is peculiarly celebrated. The Saringihara beg in the name of Bhairava (Siva). The Dori-har Jogi sect are small pedlars, selling thread and silk. The Matsyendri or Moch'ch-lendri Jogi take their name from Matsyendra, whom they regard as their founder; and the Bharttrihari Jogi, from a traditional reference to him as their founder. The varieties of the Jogi cannot be specified; they are all errants, fixed residences, or mat'hs, of any Jogi except the Khan Phata rarely occurring.

Besides the above, mention may be made of the Hindu devotees,—Abhyagat, Akali, Aghora, Babikatha, Bharttrihari, Brahmachari, Bhat, Baitali bhat, Bhau-rupya byragi, Digambar, Gosain, Jati, Jogi, Kanphatta, Kapali, Karta bhoja, Khaki, Sanyasi, Sewara suthra, Udasi.

In Buddhist countries, the Phoungyes pass rapidly through the streets, ringing a bell to attract attention, but otherwise accepting the unsolicited offerings of the people, for the daily food of their monasteries.

The Muhammadan religious mendicants are the darvesh (darvis) of Persia and fakir of India. Their sections in India and Persia are about ten in number, but some in India are not respectable. Mendicancy has undoubtedly greatly diminished since the middle of the 19th century; it is not deemed reputable, and people give less freely. But when a marriage is being celebrated, either in a Hindu or Muhammadan household, the professional beggars of the sect, bhat, ghatak, naga, raywo, and fakir, hang about the doors, and exact largesse.

The Buddhist mendicants of Tibet are not better than the Muhammadans, but those in Burma and Siam are more respected. The Jangama priests and Vaishnava mendicants of Mysore wound themselves to extort alms. It is called Pavada.—*Wilson in Oudh Rept.* p. 121.

MENES. The first who is said to have reigned in Egypt was Menes or Mena, the Eternal, from whom the later kings traced their lineage. According to Egyptian chronologists, he came to the throne about 1500 years before the Persian invasion, that is to say, 2000 years before the Christian era. The accepted date is B.C. 3623. He was probably the Minos of the Greeks, their earliest law-maker and their judge of the dead.—*Sharpe's Egypt*, ii. p. 9.

MENG-BA or Ming-ba. BURM. In Amherst, a timber used for house-posts and rafters.

MENG-DONG, the sacred stone monuments of Tibet. On each of its ends are inscribed the words, Om Mani Padmi Hom,—Oh! the jewel of the lotus, or Oh! the jewel on the lotus, or Hail to him of the lotus and jewel.

MENG-GYI. BURM. The commissioner of a province. Meng-tha, son of a prince. Meng-long, a ruler. Meng-shim-byin, a king.

MENGLA THUT, or Mangala Thok in Sanskrit, Mangala sutra in Pali, Mangala sutta in Burmese, written Mangalautt, pronounced Mangala Thok. It is the blessed instructions of Gautama; the beatitudes of the Buddhists of Burma, eleven in

number. It is the Burmese first book of reading, after the pupil has mastered the Than Bon Gye or spelling-book. The Mengala Thut are chanted occasionally to drive away the evil one. It was translated by Professor Childers.

MENG-TSZE, the Mencius of Europeans, a great philosopher of China, died B.C. 317. His system of philosophy was in favour for 1300 years.

MEN-GU. BURM. *Elaeagnus conferta*, also the *Garcinia mangostana*, Linn.

MENGUN, a town near Mandalay, the capital of Burma, famed for its great pagoda, the Sen-byu. It was built A.D. 1816 (Burmese year 1178) by Bagyeadau Piyah, grandson of king Bodo Piyah.

MENHIR, a standing-stone used as a monument to the dead. See Cairn; Khasya.

MENISPERMACEÆ. D.C. The Cocculus tribe of plants, comprising the genera Anamirta, Clypea, Cyclea, Cocculus, Epibaterium, Pselium, Gynostemma, Cissampelos, Stephania, Phytocrene, Natsiatum, and Coscinium. The plants formerly arranged under the genus Menispermum are now placed to the genera Anamirta, Cocculus, Coscinium, Clypea, and Tinospora.

MEN-JÖGI. MAHR. A class of Jogi mendicants in the Mahratta country, worshippers of Bhairava.—*Wils. Gloss.*

MENON is not a Travancore title, strictly speaking, but has been brought into that state from North Malabar, and indicates that the holders' ancestors immigrated from that district.

MENTAUS, also Jumberit, a tree of Java; the wood is white and fine-grained, and is used for inlaying, for furniture, and cabinet-work.

MENTHA, Mint.

Nana,	ARAB.	Podlinab, .	HIND., PERS.
Bu-di-na, . . .	BURM.	Jia manis, .	MALAY.
Poh-ho,	CHIN.	Widda, . . .	TAM.

A genus of plants belonging to the natural order Lamiaceæ or Labiatae. *M. sylvestris*, *M. viridis*, *M. piperita*, and *M. arvensis*, remarkable for their odour and taste, have long been used in medicine, and some as sweet herbs. *M. arvensis*, stems and leaves carminative, antispasmodic, stomachic, alexipharmic. Infusion, as a cooling drink, also as an eye lotion. *M. hirsuta*, *M. crispa*, and *M. Canadense* leaves are used for the extraction of peppermint oil. The oil is used as application to the head, and in the manufacture of peppermint pastilles. A kind of camphor, prepared from the oil at very low temperature, strongly polarizes light. It takes the form of transparent and colourless crystals. *M. incana*, Willde., is Persian mint. A species of Japan, the peppermint camphor, yields a crystalline substance called menthol.

MENTHA PIPERITA, the peppermint, grows wild in Europe, Asia, N. and S. America. Its aroma is almost destroyed by drying. It is an aromatic stimulant, and the most pleasant of all the mints. It is employed in medicine for several purposes. The essential oil is greenish-yellow, and very liquid; after long keeping, it deposits crystals of camphor; it is useful in flatulent diseases, and in the early stages of malignant cholera. Dissolved in spirit, it constitutes the tincture or essence; distilled with water, it forms the peppermint water of the shops.—*O'Sh.*

MENTHA PULEGIUM, or Pennyroyal, is found

in wet ditches in most parts of Europe, also in the Caucasus, Chili, and Teneriffe.

MENTHA ROYLEANA. *Benth.*

Kushma, BEAS.	Koshu, SUTLEJ.
Yura, Pudina, CHENAB.	Velanne, TRANS-INDUS.
Vien, KANGRA.	Mushk tara, "
Baburi, JHELUM.	

Grows common in the plains, Trans-Indus, and either *M. incana* or *M. Royleana* grow in the Himalaya and Tibet to 11,000 or 12,000 feet. *M. incana* is also occasionally cultivated in gardens, and its leaves are officinal as an astringent. *M. Royleana* is much used by the hill people of the Himalaya.—*Ainslie; Royle; O'Sh.; Stewart.*

MENTHA SATIVA. *Roeb.*

<i>M. arvensis</i> , <i>Linn.</i>	Marsh whorled mint.
Nana, Hubbuk, ARAB.	Pudina, HIND.
Bu-dina, BURM.	Widda, TAM.

This is found wild in Kashmir at elevations of 5000 to 9000 feet, and it is grown in gardens throughout India. It is officinal at Lahore, and is prescribed by the Muhammadans in dyspeptic complaints, and to stop vomiting.—*Drs. O'Sh., Honig., Stewart.*

MENTHA VIRIDIS. *Linn.* Spear-mint.

Pahari podina, *HIND.* | Podina koli, *HIND., PERS.*

Found in the milder parts of Europe, the Canaries, Cape of Good Hope, and America, both North and South. It is a native of Kashmir, and is cultivated throughout the E. Indies for its essential oil and its distilled water; greatly resembles *M. piperita*. The colour, however, is of a deep green. It is given as a stimulant in cholera.—*Dr. Stewart.*

MENTIKO, a gay festival of the Kanawari.

MENU. The Menu of the Hindus are seven,—Swayambhuva (who by some is termed an incarnation of Brahma), Swarochesa, Uttoma, Tamasa, Raivata, Chaishusha, and Satyavrata. Sir William Jones has considered Swayambhuva to have been Adam, and Satyavrata, Noah.

Menu, the name of the author of a book called the Institutes of Menu, composed at least 800 but probably 1200 years before Christ. Menu's Institutes are later than the Vedas, and show the legal, social, and political rather than the poetical and religious aspects of Brahmanism. But it is a compilation of the customs current among the various races in India, and therefore contains many contradictory passages. Many of his dicta by no means tend to elevate the condition of women. In his lengthened catalogue of things pure and impure, he, however, says the mouth of a woman is constantly pure, and he ranks it with the running waters and the sun-beam; he suggests that their names should be agreeable, soft, clear, captivating the fancy, auspicious, ending in long vowels, resembling words of benediction. Where females are honoured, he says, there the deities are pleased; but where dishonoured, there all religious rites become useless; and he declares, that in whatever house a woman not duly honoured pronounces an imprecation, that house, with all that belongs to it, shall utterly perish. Strike not, even with a blossom, a wife guilty of a hundred faults, says another sage,—a sentiment so delicate, that Reginald de Born, the prince of troubadours, never uttered any more refined. Menu lays down some plain and wholesome rules for the domestic conduct of the wife; above all,

he recommends her to preserve a cheerful temper, and frugality in domestic expenses. Some of his texts savour, however, more of the anchorite than of a person conversant with mankind; and when he commands the husband to be revered as a god by the virtuous wife, even though enamoured of another woman, it may be justly doubted if ever he found obedience thereto; or the scarcely less difficult ordinance, for a whole year let a husband bear with his wife who treats him with aversion, after which probation he is permitted to separate.

Menu has imposed obligations towards the Brahman little short of adoration, but these are limited to the learned in the Vedas; and he classes the unlearned Brahman with an elephant made of wood, or an antelope of leather, nullities save in name. And he adds further, that as liberality to a fool is useless, so is a Brahman useless if he read not the holy texts, comparing the person who gives to such an one to a husbandman who, sowing seed in a barren soil, reaps no gain; so the Brahman obtains no reward in heaven. These sentiments are repeated in numerous texts, holding out the most powerful inducements to the Brahmanical class to cultivate their minds, since their power consists solely in their wisdom. For such there are no privileges too extensive, no homage too great. A king, even though dying with want, must not receive any tax from a Brahman learned in the Vedas. His person is sacred. Never shall the king slay a Brahman, though convicted of all possible crimes. Banishment, with person and property untouched, is the declared punishment for even the most heinous crimes. A Brahman may seize without hesitation, if he be distressed for subsistence, the goods of his Sudra slave. What prince could gain wealth by oppressing these (Brahmans), who, if angry, could frame other worlds and regents of worlds, and could give birth to new gods and mortals?

The code of Menu is still the basis of the Hindu civil jurisprudence, but is received according to the interpretations and modifications of approved commentators. Since his time the Sudra races of Hindus have ceased to be slaves, but until the early part of the 19th century widows continued to immolate themselves on the funeral pyre of their husbands; intermarriages between castes have become prohibited; Brahmins have taken to soldiering, and to live apart in separate villages, or in a secluded part of the village; caste distinctions have become more rigid, except in the interested relaxation of the Brahmins; animal food has become prohibited to large classes of Hindus, the avowed imposts on the land doubled, and the laws less liberal towards women.—*Tod's Rajasthan; Elph.; Cole. Myth. Hind.; Menu by Haughton.* See Manu.

MEO, a tribe of cultivators in the Dehli province, inhabiting the low hills about Gurgaon.

MER signifies a hill in Sanskrit, hence Komulmer, or properly Kumbhomer, is the hill or mountain of Kumbho; Ajmir is the hill of Ajya, the invincible hill. Mèr is pronounced with the long è like mère in French.—*Tod's Rajasthan.*

MER, a race of the Aravalli, possibly noticed in the code of Menu as the Meda who must live without the town, and maintain themselves by slaying the beasts of the forest; the Med or Mair

race are possibly meant. General Cunningham thinks the Mer of the Aravalli are the same race.

MERCAL, Marakal, or Markal; Tamil Marakkal, a grain measure in use at Madras, containing 8 padi or measures, and being 1-12th of a kalam. It formerly contained 750 cubic inches, but is now fixed at 800 cubic inches; 400 markal = 1 garce or garisa.

MERCANDEYA, one of the Puranas; a Hindu sacred book. See Lakshmi.

MERCHANT. A great part of the Hindus of British India follow mercantile pursuits. Many Muhammadans, of Arab and Hindu descent, as the Moplah, the Labbai, the Bora, the Mehman, are active merchants. The Parsee race are extensively engaged in commerce. The Baboo of Calcutta, chiefly of Sudra origin, are also great merchants. The Chettyar of Madras, all of them Vaisya Hindus, are also largely engaged; and there are 80 clans of Rajputs engaged in commercial transactions. These Rajput tribes are known as the Marwari. Many of the Hindus of Cutch and Gujerat are largely engaged in foreign trade with the west coast of Africa, and have been great slave-dealers, occupying the coast from Zanzibar to Mozambique. The Parsees have spread from Gujerat and Bombay into Madras, Calcutta, Rangoon, Singapore, China, and London, and the chief towns on the coasts of the south and east of Asia have traders from most parts of Western Asia, from Europe, and from America.

MERCURY.

Abuk, Zibakh, . . . ARAB.	Hydrargyrum, . . . LAT.
Shwuyyiu, Hung, . . . CHIN.	Sim-ab, . . . PERS.
Mercure, Vif-argent, FR.	Parada, Rasa, . . . SANSK.
Quicksilver, . . . GER.	Rasam, . . . TAM., TEL.
Para, HIND.	

Mercury or quicksilver was known to the ancients. The Romans and Arabs seem to have employed it as a medicine externally, and the Hindus prescribed it internally. It is found in China, at Almaden in Spain, at Idria in Carniola, and likewise in S. America. Mercury was found by Dr. J. P. Malcolmson in the lava of Aden and in the laterite on the western coast of the Peninsula of India. It occurs usually as the native bisulphuret or cinnabar, combined with silver, forming a native amalgam; or with chlorine, as in horn mercury. It is chiefly obtained from the sulphuret by distillation with lime or with iron, which, combining with the sulphur, the metal distils over and is condensed. Quicksilver is said to be brought to Ava from China.

Bichloride of Mercury, corrosive sublimate.

Hydrargyri bichloridum. | Rus-capoor, GUJ., HIND., TAM.

This is white, with an acrid, metallic, and persistent taste, without smell. It is met with in small crystals, or in semi-transparent masses: It is made in many parts of British India, and seems to have been long known to and prepared by the natives of India. It is much used as a preservative of timber, canvas, etc., from the ravages of mildew, the dry rot, and of white ants. A solution is made in the proportion of one pound to four gallons of water, and in this the article to be protected is steeped a variable time, according to its nature.

Chloride of Mercury.

Hydrargyri chloridum. | Calomel, ENG.

Several preparations of mercury are described

by the Sanskrit and Tamil writers. Dr. O'Shaughnessy examined the processes, and found that they generally led to the production of a mixture of calomel and corrosive sublimate. The ras-karpur is usually calomel. Once, however, he met a specimen which was corrosive sublimate of the finest kind.

Russapusum, in great repute amongst the Tamil people, appears to be administered by them in larger doses than any other preparations of this metal. But it generally happens that through defective manipulation a mixture of calomel and bichloride is formed.

Shavirum is a strange compound, administered by the Tamils in very small quantities; is a harsh, uncertain, and dangerous preparation. In the mode of preparing it, the vapours of calomel simultaneously rising and meeting the chlorine are converted into the bichloride of mercury.

Nitrate of Mercury, Hwang shing-yoh, CHIN. Made in China by heating and subliming a mixture of red led, mercury, sulphate of iron, and nitre.

Nitric Oxide of Mercury.

Hung-shing-yoh, . CHIN. | Hung-shing-tan, . CHIN.

This is a mixture of peroxide of mercury and a little nitrate of mercury, made by fusing cinnabar, nitre, alum, realgar, and sulphate of iron.

Red Oxide of Mercury.

Hung-fen, . . . CHIN. | San-sien-tan, . . CHIN.

It is prepared in Hankow: nitre is melted in a small boiler, alum is added, and mercury is put into the middle of the mass. The red oxide is obtained as sublimated scales of a brick-red colour.—*Smith; O'Sh. Beng. Phar.; Mason; Royle.*

MERDIN, a city in Diarbekir, Asiatic Turkey, lat. 37° 26' N., and long. 39° 59' E. It is situated on the slope of the Karajadagh or ancient Mount Masius; population about 11,000; of whom 1500 are Armenians and 200 Jews. Merdin Rocks are at the Baghdad frontier towards Constantinople. The pashalik of Baghdad extends from the Merdin Rocks to the mouth of the Shatt-ul-Arab.

MERDUI, a Brahui tribe of shepherds living near Khozdar, who obtain antimony and lead from the hills of Kapper. Writing of Jhalawan, Dr. Cook says the mountain range of Baluchistan is the great natural boundary of Western India, and may be described, figuratively, as composed of a vast under structure, surmounted by parallel rows of walls (represented by mountain ranges) cut through here and there by long and meandering passages. Amongst these mountains the Merdui tribe of the Brahui obtain lead ore, and reduce it. A place called Seman is situated amongst low sandstone hills, black externally, with fragments and boulders of dark blue limestone, and arenaceous nummulitic rock scattered around. Beneath the sandstone is a red sandy clay, and in this is found red-ore, carbonate of lead in thin, flat, tabular masses, looking like a broken-up vein, which are covered externally with a layer of calcareous earth that prevents them from being easily detected. The shepherds poke about with a stick, pick up any promising pieces, roughly estimate the specific gravity by the hand, and if they have not the proper weight, reject them. At Khozdar the implements for reducing the lead ore are very rude: a rough furnace, with four upright square stones and a hole below to insert the nozzle of a pair of bellows.

MEREL. TAM. A cess paid by mirasidars for the communal expenses.

MERGELLUS ALBELLUS, also *Mergus albellus*, the snew, has the circuit of northern regions, W. Asia, Sind, Panjab, Oudh, and is not rare along the Panjab rivers.

MERGUI, Myo of the Burmese, is in lat. $12^{\circ} 27' N.$, and long. $98^{\circ} 38' E.$, on an island at the entrance of the principal branch of the Tenasserim river. High water at the springs occurs about $11\frac{1}{2}$ or 12 hours, when the rise is from 18 to 22 feet. The harbour admits ships of 18 feet draught of water. Population about 12,000. Mergui possesses coal. The beds are extensive, from 9 to 18 feet thick, and about 16 feet from the surface. The principal mine is about 90 miles up the great Tenasserim river. Mergui was taken 15th September 1824. The Tenasserim, the Legnya, the Pak-chan, and the Pa-look are the rivers, and the passes into Siam are the Tsa-raw, the Maw-doung, and the Khaw Maun.

MERGUI ARCHIPELAGO is called by the people Myut Myo. The innumerable islands fronting the coast of the Malay Peninsula extend to the distance of 70 miles from it, and form the Mergui Archipelago. They exhibit a great variety of picturesque and wild scenery, the larger islands rising in successive ranges of hills thickly wooded at their tops with trees of a rich and varied foliage. The small rocky islands with their rugged sides rise in contrast. There are few settled inhabitants on the archipelago, but roving seafaring tribes pass from island to island, living partly in their boats and partly in temporary huts, collecting shell-fish, turtle, trepang, beche-de-mer, and edible birds' nests, which they barter for rice and cloth. Seyer Islands and King Island are the principal islands. Maingy (Maingay) Island, in lat. $12^{\circ} 32' N.$, and long. $98^{\circ} 7' E.$, can be seen for 11 miles, and the S. peak of St. Matthew's, in lat. $10^{\circ} 52' N.$, and long. $98^{\circ} E.$, for 13 miles.

An almost uninterrupted belt of islands extends along all the western side of the isthmus, and is continued as far as Penang, although an interval between it and the Lankawi group contains only a few. The rest of the western coast, and the greater part of the eastern, are more thinly sprinkled with islands. But there are several extensive groups of islands, some of them remarkably bold and imposing, along the latter coasts, such as the Eastern Johore Archipelago and the Redang Islands. The concave southern coast half embraces the island of Singapore, and an archipelago of several hundreds of islets stretching to the S.E. by S. from the termination of the continent to Banca and Billiton, marks that the peninsular zone has not yet wholly sunk beneath the sea, and, expanding as it does to the west, and blocking the extremity of the straits, attests how nearly a junction with Sumatra has been accomplished. The chain of high islands fronting the coast of Tenasserim extend from Tavoy Island, in lat. $13^{\circ} 13' N.$, to the Seyer Islands, in lat. $8^{\circ} 30' N.$ The number of the Selong or wandering fishermen of the Malay Archipelago amounts to about 1000 souls.—*Journ. Ind. Arch.*

MERGUS MERGANSER, the Goosander (*M. orientalis* of Gould), has the circuit of northern regions; not rare in the Himalaya; rare in Central India.

MERIAH, the name given to the victims of sacrifice in the Khond tracts near Orissa, where young persons were sacrificed to propitiate the divinity supposed to preside over the soil. The Meriah sacrifices to the earth goddess were made amongst the Khond until the close of the Gumsur war in 1836. In Boad and Gumsur, the form under which the goddess was worshipped is as a bird, but in Chinua Kimmedy that of an elephant. In one place there was a pit dug, over which a hog is killed, and the Meriah's face then forced into the bloody mire until suffocated. Pieces of the flesh were then cut off and buried beneath the village idol and in the fields of the villagers. In Boad, great value was attached to the saliva of the Meriah. A Meriah Agency was instituted for the purpose of suppressing the human sacrifices, and it has nearly attained that object. The Meriah victims were natives of the low countries bordering on the Khond mountains. They were procured for the purpose by the Khond from the Pano by a regular system of crimping and kidnapping. All were acceptable, from the Brahman or Muhammadan to the Pariah, without distinction of age or sex. The greater number were very young children, who were purchased or stolen, carried to the hills, and allowed to live till some occasion called for a sacrifice. The rescued Meriah were placed in villages of their own, on land granted them by Government, and they made considerable progress in acquiring settled and industrious habits. The Khond inhabit an immense tract of mountainous country, covered with dense jungle. They are a hardy and independent race, who looked on human sacrifice as the only means of averting the anger of heaven. Meriah sacrifices in the hill tracts of Orissa have much decreased, and the Khond have been sacrificing buffaloes instead. The establishment has not succeeded in entirely preventing Meriah sacrifices even on shore, and on board the country ships plying in the neighbourhood of the districts where the practice prevails, they were rather the rule than the exception.

The Digalo is found in Khond communities occupying the position of servant and counsellor to the Khond headman or Moliko; he is of the Pano caste, a race possessing more cunning than the Khond, and exercising much indirect influence in consequence. They are thieves and kidnappers, and officiate as priests at Meriah rites. Their influence is exercised usually for evil.

MERIANDRA BENGALENSIS. Benth.

Kafur ka patta. . HIND. | Sima karpuram. . . TEL.

A plant of the family of Labiatae, with a camphor-like smell and taste, in use amongst the people of India as a medicine. Its leaves are stomachic, equal to *Salvia officinalis*. *M. strobilifera*, Amurtoo, HIND., has a strong camphor-like fragrance.—*O'Sh.* p. 492.

MERISTA LÆVIGATA, the Tipau tree of New Zealand, grows straight, 16 to 20 feet high. Its wood is hard, heavy, and durable, and is used for poles.—*G. Bennett.*

MERKARA or Madhukeri or Mahadevapet, the chief town of Coorg, is in lat. $12^{\circ} 26' 50'' N.$, and long. $75^{\circ} 46' 55'' E.$, on a table-land 3809 feet above the sea, 130 miles south-west from Bangalore. The fort is situated on an eminence

of considerable natural strength, but commanded by neighbouring hills. Merkara is said to have been founded in 1681 by Muddu Raja; the original seat of the family had been at Habri.

Merkara was captured by the Madras army on the 6th April 1834. The raja's palace, a spacious building, is supposed to have been built by an Italian, who is said to have been bricked up in a wall as soon as the building was finished. Vera-jenderpet is 20 miles on the road leading to Cannanore from Merkara.

Fraserpet is 20 miles from Merkara. The river Cauvery runs past it, and forms the boundary between Coorg and Mysore. The S.W. monsoon, which always rages throughout Coorg from June to November, is scarcely felt at Fraserpet. Coorg became one vast coffee plantation, and estates were vigorously cleared wherever they abutted on the road, by which produce could alone be carried off.

MERODACH was a favourite Babylonian god. From the earliest times the Babylonian monarchs placed him in the highest rank of deities, worshipping him in conjunction with Anu, Bel, and Hea, the three gods of the first triad.—*Rawlinson's Religions*, p. 68.

MEROE, in Ethiopia, a country mentioned in the Scriptures, corresponding to the present kingdoms of Nubia and Abyssinia. It was also called Seba, as also Meroc. It is named in Milton's *Paradise Lost*, when describing the inhabitants of the world,—

. . . 'some from farthest south,
Syene, and where the shadow both way falls,
Meroc, Nilotic isle.'

It was at one time occupied by Arabs under a settled form of government, who conquered Nubia and harassed the Thebans. During the earlier centuries, all these Arabs were easily conquered by the Egyptians.—*Sharpe's Egypt*, i. p. 104.

MEROOT, also called Idaan, a race in Borneo who inhabit the more hilly districts towards the north, in the vicinity of Kina-Balou. They are said to sacrifice human victims like the Kyan. The Idaan, of different places, go under different denominations, and have different languages, but in their manners and customs they seem to be nearly alike. The name Idaan is, in some measure, peculiar to those of the north part of Borneo; the inland people of Passir are called Darat; those of Benjar, Binjoos; the Subano of Magindanao appear to be the same people. The Idaan are reckoned fairer than the inhabitants of the coast. The custom obtains of arranging human skulls about the houses of the Idaan as a mark of affluence.—*J. Ind. Arch.*, 1849, p. 557.

MERU, a mythological mountain of the Hindu religionists, also called Sumeru and Hemadri. It is the Mien-mo of the Burmese, and the Simeru of the Siamese. It is termed by the Hindus in their theogony, the navel of the world, and is the fabled residence of their deities. Hindus, Siamese, and Burmese describe this mountain differently. On one of its three peaks is Kailasa, the heaven of Siva; and on another is Swarga, or paradise of Indra. In the *Ramayana* (book i. p. 236), Mera is the mountain nymph, the daughter of Meru and spouse of Himavat, from whom sprang two daughters, the river goddess Ganga, and the mountain nymph Parvati. She is, in the *Mahabharata*, also termed Syeela, the daughter of Syeel,

another designation of the snowy chain, and hence mountain streams are called in Sanskrit silettee. Syeela bears the same attributes with the Phrygian Cybele, who was also the daughter of a mountain of the same name; the one is carried, the other drawn, by lions.

Meru mountain is famed in the traditions of the ancient Hindus. Pamir is the country about Meru (upa-meru). Meru seems to mean strictly the terrestrial orb. The Greeks also metamorphosed Parvat Pamir, or 'the mountain Pamir,' into Paropamisana, applied to the Hindu Koh west of Bamiyan; but the Parvat put Pamir, or 'Pamir chief of hills,' is mentioned by the bard Chand as being far east of that tract, and under it resided Kamira, one of the great feudatories of Prithivi raja of Delhi.

Until the middle of the 19th century, the Hindus at Bikanir, Rajputana, taught that the mountain Meru is in the centre, surrounded by concentric circles of land and sea. The Brahmins supposed that, as there is sea at the coasts, there must be alternate circles of land and sea. Some Hindus regard Mount Meru as the North Pole. The astronomical views in the Puranas make the heavenly bodies turn around it.—*Cole. Myth. Hind.* p. 253; *Moor*, p. 270; *Hindu Theatre*, i. p. 241; *Bunsen*, i. p. 431; *Tod's Rajasthan*, i. p. 24; *Ramayana*, lib. i. p. 236.

MERUTUNGA, a learned man of the Jaina sect, who flourished in the 15th century, and wrote several historical books.

MERV is situated in an oasis of the same name. It was the capital of the ancient Margiana, is said to have been founded by Alexander the Great, and became the residence of one of his successors, Antiochus Nicator, who called it Antiochia Margiana. In more modern days it was one of the four imperial cities of Khorasan, and was long a seat of many of the sultans of Persia, but in particular of those of the Seljuk dynasty. Alp Arslan, the most powerful prince of his time, reigned here for a number of years in all the pomp and splendour of oriental magnificence.

The Merv of to-day is a cluster of Turkoman encampments. The old city of Merv (the Margiana Antiochia of the ancients) is 12 miles away, and consists of merely a number of ruins imbedded in the sands. The river Murghab, which runs through Merv, is deep and rapid, and affords a plentiful supply of water for the numerous canals that branch off and irrigate the oasis. The number of Tekke Turkomans living in the oasis itself may be roughly reckoned at 100,000. The country is famed throughout Central Asia for its fertility; and if peace and security prevailed in the region, the surplus of the crops would be sufficient for 50,000 troops. Caravans from Khiva, Bokhara, and other provinces of Central Asia pass through it on their way to Persia, Afghanistan, and India. Most of the people possess large flocks of sheep, and herds of camels and horses. Their bravery had passed into a proverb; and it was said that the clans, if united, could put forth a fighting strength of 100,000 sabres. But Russia overcame them in 1883, after a few years of fighting.

In 1786 it was sacked by the Uzbek Amir of Bokhara, and it dwindled to an assemblage of about a hundred mud huts, surrounded by a small mud wall. It is on the right bank of the Murghab, 200 miles from Bokhara, 215 from Meshed, and

432 miles S.E. of Khiva. The area of the plain of Merv is about 2400 square miles. Four cities of Merv have been in existence, and their ruins are still visible. One was built by Shah Abbas; another was destroyed by Murad Beg of Bokhara. The Russian Government have occupied the Merv oasis. The occupation is extremely important, not only from a strategical, but from a commercial point of view. The city of Herat is only some 200 miles to the south of it. Merv was regarded by the Persians as the spot where Adam received from the angel the first lesson in agriculture.—*Malcolm's Persia*, ii. p. 232; *M. Veniukof*; *Collett's Khiva*; *Kinneir's Geog. Memoir*.

MESAKHEE, a shrubby plant of Assam, very abundant. Its young branches, which are tender and red-coloured, as well as its leaves, are edible. Its fibre is well adapted for cordage. Large quantities grow wild in Upper Muttuk, and elsewhere in the district.

MESEMBRYANTHEMACEÆ or *Mesembryaceæ*, *Lindl.*, a natural order of plants, comprising the genera *Mesembryanthemum*, *Glinus*. *M. crystallinum*, is the ice plant. The principal species seem admirably adapted for fixing loose, shifting sand. Its thick bark enables it to bear without shrinking a long privation of moisture, at the same time that it gives shelter to the nascent shoots of other plants. The mucilag'ous capsules of *M. edule* or Hottentot fig are the chief material of an agreeable preserve. *Mesembryanthemum nodiflorum*, at the Cape, is used in making morocco leather. They are mostly Cape plants.

MESHA'AB. ARAB. There are three kinds of sticks used for driving camels. The *mesha'ab*, which is a branch of almond wood cut out of the bough so as to leave an obliquely-inclined head. This is chiefly but not exclusively used by the sherif, and in the prince of Mecca's hand is the symbol of sovereignty; the bark is left on it entire. The '*matrak*' is a longer and perfectly straight peeled wand; and the '*bakur*', shorter and heavier than the last, is bent round at the end; both the *bakur* and *mesha'ab* are held by the straight part. The *mesha'ab* is of immemorial use in Arabia, and is historically interesting. A *mesha'ab* is mentioned as forming part of the scanty succession of Mahomed.—*Hamilton, Sinai*.

MESHED is in lat. 36° 15' 44" N., and long. 57° E. It is the ancient Tus. It is in Khorasan, and is famed for the tomb or mausoleum of Imam Raza, in which the remains of Harun-ur-Rashid are placed.

Nadir Shah entered Dehli on the 9th March 1739, and, in returning from India, retained all west of the Indus at Attock. He was assassinated in his tent at Meshed in Khorasan, by three of his officers, on 8th June A.D. 1747. The fate of Nadir Shah has been thus recorded, doubtless by some mullah: 'Nadir baduzakh raft,' Nadir is gone to the abyss of hell. These letters give 1161, the year of the Hijira which corresponds with A.D. 1747.—*Fraser's Journey*.

MESHED ALI, a town of Turkish Arabia, 30 miles from the ruins of Babylon. It contains the tomb and mosque of Ali. It was the capital of the Arab and Christian dynasties till taken by the Saracens in the 7th century.

MESMERISM is largely practised by the Chinese, especially in the Toong Koon district of Kwang-tung.—*Gray*, i. p. 265.

MESONA WALLICHIANA, a labiate plant that grows on the ascent of the Jaintia Hills, whose bruised leaves smell as strongly of patchouli, as do those of the plant producing that perfume, to which it is closely allied. *Pogostemon patchouli* has been said to occur in the Khasiya Hills. It is a native of the Malay Peninsula, whence the leaves are imported into Bengal, and so to Europe.—*Hooker, Him. Journ.* ii. p. 314.

MESOPOTAMIA is the name by which Babylonia was designated after the Macedonian conquest. Strictly, it comprises all the country between the Euphrates and the Tigris, but the name is usually restricted to the part of it S. and E. of Orfa and Mardin. The most of it is within the province of Baghdad. The upper part of it is called al-Jazirah, and the lower part Irak-Arabi.

Its limits were somewhat differently defined by ancient writers.

Strabo says that the Tigris washes the eastern side of Mesopotamia, and the river Euphrates its southern and western; whilst the Taurus separates it from Armenia on the north. Pliny, who is still more distinct, says that Mesopotamia has the Tigris to the east, the Euphrates west, the Persian Gulf south, and the Taurus north, with a length of 800 miles and a breadth of 360 miles, the city of Charax being at the extremity of the gulf (lib. vi. c. xxvii.). Mesopotamia extends above 10° in longitude, from Balis, in long. 38° 7' 10" E., to the estuary of the old Karun, in lat. 7° 31' 5" N., and long. 48° 45' 16" E.; from the shores of the Persian Gulf, in lat. 30°, to Sumeisat, in lat. 37° 31' 5" N.; its greatest width being about 170 miles, from Jaber Castle to Hiss Keifa on the Tigris, and its extreme length nearly 735 miles. The irregular triangle thus formed has a superficies of nearly 76,117 square miles, including the shores of the gulf from the Pallacopas to the old Karun. Truffles and wild capers, peas, spinach, and the carob, *Ceratonia siliqua*, are found in Mesopotamia. A pea called Arab addis is particularly good. The principal towns of Mesopotamia are Diyar Bekr, Hiss Keifa, Jezireh, Mosul, Tekrit, Sammara, and Kut-el-Amarah along the Tigris; Erzingan, Kemakh, Egin, Kebsan Maden, Malatiah, Ram, Kal'ah, Bir, Rakkah, Deir, Itawd, Anah, Hadisah, El' Uzz, Jibbah, Diwaniah, Lam-lun, Sheikh-el-Shuyukh, and Kurnah along the Euphrates; in addition to Suverek, O'fah, Haran, Seroug, Ras-el-ain, Mardin, Nisibis, Sinjar, El Hadhr, Kerbelah, Meshed Ali, Samawah, Zobeida, and many other villages, both in the mountains and along the streams, between the two great rivers. Grane or Quade, Mohammarah, and Basrah are the ports; and the last, being the principal, is next in importance to Baghdad, the capital. The inhabitants consist of Arabs, Osmanli Turks, Kurd, Turkoman, Syrians, Jews, and Christians. Arabic is the general language, Turkish, Kurdish, Chaldee, Syriac, and Syro-Chaldean dialects being the exceptions. The Sunni Muhammadan religion is prevalent; but in Upper Mesopotamia there are many Christians of the creed of Nestorius (some of whom have become Roman Catholics), and Jacobite as well as Roman Catholic Syrians.

The races that have ruled here have been many, and from the most remote times, and remnants are still to be traced of former dominant peoples in the varied languages still spoken. The present rulers are the Turks of Constantinople.

MESPILUS GERMANICA. L.

Ukuj, Shajarat-ul-dub, A.R. | Larooa, Keel, . . . HIND.

Common edible medlar; common in many parts of Europe, and occurring in English hedgerows.

MESSIAH, a title of Jesus, born of Mary. It is from the Masah of the Arabs, and is the Christos of the Greeks. Anointed is an epithet. St. Peter (Acts x. 38) tells us that God had anointed Jesus of Nazareth to be the Christ. This is held to mean specially set apart for God's service—whether persons or things, required anointing; and the anointing of Jesus was the work of the Holy Ghost (Acts x. 38), first, at his conception (Luke i. 35), second, at his baptism (Matthew iii. 13). Thus the term, as applied to Jesus, is not a name, but the expression of his office, a title, whether expressed by a Greek, Hebrew, or English word, Christ, Messiah, Anointed.

MESTRI or Mistri, a carpenter, mechanic, mason, artificer, a chief builder, a master mason.

MESUA, a genus of plants of the order Garcinaceæ or Clusiaceæ. All the species have a very hard, heavy, reddish-coloured timber, known as iron-wood, and perhaps the hardest and heaviest timber in India. Axemen dislike very much to fell them, as they turn the edge of their axes. Their wood is most valuable for engineering purposes, and is largely used in Ceylon.

Amongst the described species are *M. Coromandelina*, *W. Ic.*, *M. ferrea*, *W. Ic.*, *M. pedunculata*, *W. Ic.*, *M. pulchella*, *Planch.*, of Ceylon, *M. Roxburghii*, *W.*, and *M. speciosa*, *Choisy*. It is relating to one of them that the Burmese say that their next Buddha, Aree-na-taya, will enter the divine life while musing beneath its hallowed shades, hence it is a favourite tree with the Buddhist priests of Burma, who plant it around their monasteries. In Sanskrit it is called nagkesara.

MESUA COROMANDELINA. W.

M. ferrea, *W. and A. Proel.* | *M. pulchella*, *Planch.* !

Nag'ha, Naga-champa, HD. | Nangal, TAM.
Mallay nangal, . . . TAM. | Nir-nang, "

This is a very handsome tree, common in most of the mountain forests on the western side of the Madras Presidency, growing with its congener *M. speciosa*, from which it is readily known by its much smaller leaves and flowers. On the Tinnevely ghats it is very abundant, and its timber much in use; it is there called Nir-Nang, to distinguish it from *Mesua speciosa*, which is called Nang. This species is much in use with the natives in Tinnevely, and is looked upon as one of the best timbers; but in the Wynad and other parts, where it is also abundant, it is not utilized, and seems hardly to be known.—*Thw. En. Pl. Zeylan.*; *Beddome, Fl. Sylv.*

MESUA ROXBURGHII. W. III. Iron-wood.

M. ferrea, *R. ii. p. 605.*

Ken-gau, Gungau, BURM. | Naga-kesara, . . . SANSK.
Nagkesar, . . . HIND. | Irul marani, . . . TAM.
Nag-champa, . . . MAHR. | Chikati manu, . . . TEL.
Beluta-champagam, MAL. | Naga-kesara chettu, . .
Kesaramu nagasara, SANS. | Suvarnam, "

The blossoms are remarkable for their fragrance, and are sold in the bazars of India under the name of Nagkesar. Sir William Jones says that the delicious odour of its blossoms justly gives them a place in the quiver of Kama Deva, the Hindu god of love.

. . . 'with foot as light
As the young musk roe's, out she flew,
To cull each shining leaf that grew
Beneath the moonlight's hallowing beams,
For this enchanted wreath of dreams;
Anemones, and seas of gold,
And new-blown lilies of the river,
And those sweet flowerets that unfold
Their buds on Cama-deva's quiver.'

It flowers in the beginning of the warm season. The wood is very strong and tough. The seeds are contained in a strong brown skin,—one, two, or three in each. When ripe, the skin bursts, and the seeds drop out. The oil is an excellent remedy for cutaneous diseases; dried buds, considered a temperate remedy, used in coughs, especially while attended with much expectoration.—*Roxb.*

MESUA SPECIOSA. Choisy.

Mesua ferrea, *Linn.* | *Deya-na-gasa*, . . . SINGH.

A tree of Nepal, and growing on the banks of streams in the Ratnapura district of Ceylon.—*Thw.*

MESUE. Two of this name, both of them Nestorian Christians, were in medical practice at Baghdad,—John, the elder, in the 8th and 9th, and the younger in the 10th century. John of Damascus was president of the college at Baghdad founded by the khalif Mamoon, A.D. 813. He wrote several works, which have disappeared, but he was the first who made correct translations into Arabic from the works of the Greek physicians, especially of Hippocrates and Galen.

The younger Mesue wrote a treatise on *Materia Medica* and *Pharmacy*, which for a long time was held in great estimation, and was republished and commented upon so late as the 16th century. He mentioned several new remedies, and was doubtless in advance of the knowledge of the day.

MET. SIND. A clay quarried near Hyderabad and other places. The Persian name is Gil-i-sar shui, 'the head-washing clay.' When mixed up with rose leaves, it makes anything but a bad wash-ball.—*Burton's Scinde*, i. p. 31.

METALS imported into India consist of wrought brass, copper unwrought and wrought, cast or pig iron and wrought iron, lead ore, pig lead, wrought lead in sheets, pipes, and tubes, quicksilver and steel, tin unwrought and wrought, zinc. These will be found noticed under their individual names, but the total quantities and value imported were as under:—

1874-75,	34,375 tons.	Rs. 2,60,71,224
1876-77,	140,937 "	3,56,20,494
1882-83,	203,938 "	4,61,38,588

The metallic products of the East Indies comprise antimony, arsenic, chromium, cobalt, copper, gold, iron, lead, manganese, mercury, nickel, platinum, silver, tin, titanium, and zinc.

Metal casting in India is very largely practised, and the processes are of great simplicity. The natives generally prepare a model in wax, and imbed it in moist clays, which, after being dried in the sun, is heated in the fire, the wax run out, and the metal run in. A better plan, where accuracy is required, is to cut the model in lead, and, having bedded it in clay, it may, when the mould is dry, be melted and run out, and the metal run in. In Manbhum, a core is made of plastic clay, all carefully shaped to the internal form of the fish or other object to be imitated. This core is then baked and indurated. On this,

the pattern designed to be represented is formed with clean beeswax. This done, and the wax having cooled, it becomes tolerably hard. Soft clay is moulded over all. The whole is then baked, the heat indurating the outer coating of clay, but softening the wax, which all runs out of the mould, leaving empty the space occupied by it. The mould being sufficiently dried, the molten brass is poured into the empty space, and, when cool, the clay is broken away, when the figured casting is seen. These are untouched after the casting, excepting on the smooth and flat surfaces, which are roughly filed. The Chinese excel in all working in metals, in ordinary blacksmith work, metal smelting, alloys, particularly their white metal of copper, zinc, iron, silver, and nickel, their sonorous gongs and bells, one at Pekin being 14½ feet by 13 feet, and their ingenious metallic mirrors, some with engravings. The Burmese, also, are skilled.

Indian metal ware is of several descriptions, some of it being much admired by Europeans. The black engraved work of Moradabad, N.W. Provinces, is well known, and so is the Tanjore brass ware. Madura men also manufacture brass vessels, to sell to the pilgrims.—*Messrs. Morrison, Rohde, Cal. Cat. Ex.* 1862.

METARI. TEL. A headman among the lower castes, as palanquin-bearers, washermen, cowherds, etc. Qu. Mehtari.

METAWALI, a Shiah Muhammadan sect in Palestine, supposed to be ancient Syrians.

METCALFE, CHARLES THEOPHILUS, a Baronet of Great Britain, afterwards created a Baron of the Empire, a civil servant of the E.I. Company in Bengal. Before he was twenty years of age, he served at the court of Sindia, under the Resident, Colonel Collins. When only twenty-three years old, he was sent by Lord Minto on a mission to Ranjit Singh at Lahore. He met the maharaja at Kussoor on the 11th September 1808. On the 25th April 1809 he concluded a treaty stipulating that the maharaja should retain possession of the territories to the north of the Sutlej, but refrain from all encroachments on the possessions of the chiefs on the left bank of the river, who were now taken under British protection. He rose to be Governor-General of India, was afterwards Governor of Jamaica, and subsequently Governor-General of Canada. He was Governor-General of India from the 20th March 1835 to the 4th March 1836, and during his administration a free press was given to that country.

METEMPSYCHOSIS, or transmigration of the soul, is believed in by the Hindus and Buddhists of Asia, and by all the pre-Aryan aboriginal races in British India. The metempsychosis doctrine seems to have been held coeval amongst the Brahmans and Egyptians. The Pythagorean sect of Magna Grecia seem to have derived it from Egypt. In the Institutes of Menu, at least thirty different creatures are named into whose bodies malefactors are imprisoned, according to their crimes, the scale descending down to such particulars as that he who stole perfumes should be changed into a musk-rat. Metempsychosis is the idea that a human being guilty of sensual sins should be changed into an animal that is only conscious of the senses. But metempsychosis, according to Bunsen, is the recognition that there is a solution of the enigma of existence, which is not to be found in the term of a single life on earth,

and yet which we are impelled to seek after, in order to explain this life. All guilt must be expiated; but the final issue, though reached only after the lapse of unnumbered ages, will be the triumph of the good, the general reconciliation, and a life in God will be the eternal heritage of the soul. Thousands of years before Christianity announced the certainty of immortality, the three civilisations of the Egyptians, the Brahmans, and the Druids believed that the human soul died not after death. Abu Zaid, the historian, writing in A.D. 916, mentions that in Balhara and other parts of India, men burned themselves on a pile, influenced by their belief in a metempsychosis; and he adds that when a man or woman became old, he or she begged that they might be thrown into the fire or into water. The Tibetan Buddhists count six classes of existence, viz. four bad, those in hell, the brute, asur, and yidag; and two good, those as man and God.—*Fraser's Journ.*, 1868; *Bunsen; Elliot's History*, pp. 1-9; *Haughton's Menu*, p. 406.

METEORIC FIRES. The shahaba or wandering meteoric fires, on fields of battle and in the places of great sacrifice, produce a pleasing yet melancholy effect, and are the source of superstitious dread and reverence to the Hindu, having their origin in the same natural cause as the wandering fires of Odin, the phosphorescence produced from animal decomposition.—*Tod's Rajasthan*.

METEORIC IRON. A mass, 15 inches long and 12½ inches broad, was found imbedded in the soil on the top of the forest-clad Kurruckpur Hills, near Monghir. The hillmen exhumed it, and for many years worshipped it. It was sent to the museum of the Beng. As. Soc.

METEORITES. Till the beginning of the 19th century, the fall of stones from the sky, aerolites, aeroliderolites, and aerolites, seemed an event so strange, that neither scientific men nor the mass of the people could be brought to credit its possibility. Such falls are, indeed, recorded by the early writers of many nations, Hebrew, Chinese, Greek, and Roman; but the witnesses of these events had been in general laughed at for their delusions. The oldest undoubted sky-stone at present known is that which, though after the Revolution in France removed for a time to the library at Colmar, is once more suspended by a chain from the vault of the choir of the parish church of Ensisheim in Elsass.

The famous mass known as the Pallas-iron, weighing 1500 lbs., of which the greater part is now in the museum at St. Petersburg, was met with at Krasnojarsk by the traveller Pallas in the year 1772, and had been found on the surface of Mount Kenirs, between Krasnojarsk and Abekansk in Siberia, in the midst of schistose mountains: it was regarded by the Tartars as a holy thing fallen from heaven. The interior is composed of a ductile iron, which, though brittle at high temperature, can be forged either cold or at a moderate heat.

At 8 o'clock on the evening of December 19, 1798, many stones fell at Krakhut, 14 miles from Benares, in India (S. 150); the sky was perfectly serene, not a cloud having been seen since December 11, and none being seen for many days after. According to the observations of several Europeans, as well as natives, in different parts of the country, the fall of the stones was preceded by the appearance of a ball of fire, lasting for only a few instants,

METEORITES.

and accompanied by an explosion resembling thunder. After an explosion are generally heard sounds which have been variously likened to the flapping of the wings of wild geese, to the bellowing of oxen, to the roaring of a fire in a chimney, to the noise of a carriage on the pavement, and to the tearing of calico; these sounds are probably due to the rush of the fragments through the air in the neighbourhood of the observers. Sometimes the fragments reach the ground before the sound of explosion is heard, proving that the break-up has taken place while the velocity of the meteorite was considerably higher than that of the sound vibrations (1100 feet a second).

As to the nature of the matter of which these meteorites are composed, about 24, and those the most common, of the 64 elements at present recognised as constituents of the earth's crust, have been met with, while no new element has been discovered. The most frequent are iron, magnesium, silicon, oxygen, and sulphur; next follow aluminium, calcium, nickel, carbon, and phosphorus; while in smaller quantity occur hydrogen, nitrogen, lithium, sodium, potassium, titanium, chromium, manganese, cobalt, copper, arsenic, antimony, tin, and chlorine. All of these are met with in the combined state, but some, among which may be mentioned iron, carbon, and sulphur, are present also in the elementary condition.

There is no record as to where all that have fallen in India have been placed. The stones which fell at Parnallee in 1857 were lodged in the Government Central Museum, Madras, and the Muddoor stone of 1865 was placed in the Mysore Museum.

METEOROLOGY.

Name of Fall and Locality.	Date of Fall or Find.	Weight in Grams.
Mouza Khoorna, Sidowra, Gorakhpur District, Babuwoly Indigo Factory, Supuhee, Gorakhpur, Gopalpur, Jessore, Sherghotty, near Gya, Berar, Muddoor, Mysore, Udipi, South Canara, Pokhra, near Bustee, Gorakhpur, Jamkheir, Ahmadnagar, Khetrie (Sankhoo, Phulee, etc.), Rajputana, Goalpara, Assam,	Jan. 19, 1865	4,050·6 200·0 147·0 128·8 407·3 3,306·0 45·9 18·8 13·1 1,187·0
Iodran, Multan,	Oct. 1, 1868	66·5
Moteeka, Nugla hamlet, Ghoordha, Bhurtpur, Tjabé, Padangan, Java,	Dec. 22, 1868	407·9
Bandong, Java,	Sept. 19, 1869	18·8
Dyalpur, Sultanpur, Oudh,	Dec. 10, 1871	14·0
Jhung, Panjab,	May 8, 1872	269·8
Khairpur, 35 miles E. of Bahawalpur,	June 1873	1,984·0
Sitathali, Raepur, Rajputana, Nageria, Fathabad, Agra,	Sept. 23, 1873	2,991·0
Judessgeri, Kadaba Taluk, Mysore,	Mar. 4, 1875	600·0
Dandapur, Gorakhpur,	April 24, 1875	8·5
	Feb. 16, 1876	135·1
	Sept. 5, 1878	2,245·0

METEOROLOGY, in its connection with the East Indies, the people and their industries, has to be noticed with reference to its rainfall and its winds. For the latter, the articles Cyclones, Famines, Monsoon, Storms and Winds may be seen. All the dearths and famines of India and the south of Asia have been the consequence of insufficient rainfall and droughts in particular districts, and in some of them millions have perished for want of food.

Name of Fall and Locality.	Date of Fall or Find.	Weight in Grams.
Parambanan, Socrakarta,	1866	8·9
Nedagolla, Mirangi, Vizagapatam,	Jan. 23, 1870	4,379·7
Krakhut, Benares,	Dec. 19, 1798	510·6
Moradabad, Bengal,	1808	17·1
Near Gurramkonda, between Punganur and Kadapa,	1814	9·8
Kaeé, Sandee District, Oudh,	Jan. 29, 1838	209·2
Akbarpur, Saharunpur,	April 18, 1838	1,568·7
Chandakapur, Berar,	June 6, 1838	760·7
Manegum, near Eidulabad, Kandesh,	June 29, 1843	11·4
Agra (Kadonah),	Aug. 7, 1822	38·8
Futtehpur, N.E. of Allahabad,	Nov. 30, 1822	1,286·0
Bithur and Shahpur, N.W. of Allahabad,	1822-23	20·6
Ambala,	Feb. 16, 1827	163·5
Mhow, Ghazipur,	Feb. 18, 1815	12,588·9
Durala, Patyala,	June 12, 1834	37·8
Charwallas, near Hissar,	Found 1846	538·7
Assam,	Nov. 30, 1850	1,404·0
Shalka, Bancoora, Bengal,	Dec. 2, 1852	1,000·0
Bustee, between Gorakhpur and Fyzabad,	Mar. 6, 1853	1,205·7
Seggrowlee, Bengal,	Feb. 28, 1857	61,361·0
Parnallee, Madras,	Dec. 27, 1857	654·0
Pegu (Quenggouk),	1859	1·8
Panpanga, Philippines,	Mar. 28, 1860	353·3
Khirigurh, S.E. of Bhurtpur,	June 16, 1860	4·1
Kusiali, Kamaon,	July 14, 1860	12,407·0
Dhamsala, N.E. of Panjab,	13,071·5	843·0
Butsura { Qutahar bazar), (Chireya), (Piprassi), (Bulloah),	May 12, 1861	5,060·0 158·5
Pulsora, N.E. of Rutlam,	Mar. 16, 1863	48·0
Shytl, 40 miles N. of Daocn,	Aug. 11, 1863	462·7
Manbhum, Bengal,	Dec. 22, 1863	122·9

AVERAGE ANNUAL RAINFALL AND TEMPERATURE.

STATION.	Rainfall. Inches.	Mean Heat. Fahr.	Max. Temp.	Min. Temp.	Altitude. Feet.
Abu,	62·36	68·1	97·2	32·8	4000
Ajmir,	23·34	77·3	118·0	48·8	1800
Akola,	27·05	78·7	113·7	36·7	929
Akyab,	196·63	78·9	100·5	47·3	21
Allahabad,	35·92	77·6	119·0	36·0	298
Bangalore,	35·38	73·6	98·3	48·9	3131
Bellary,	17·33	81·1	108·3	53·0	1500
Bombay,	74·20	78·9	94·9	58·0	14
Calcutta,	65·80	79·3	106·0	51·4	18
Chakrata,	59·96	56·1	91·0	18·7	7056
Cherrapunji,	359·615	...	...	...	4400
Chikalda,	58·13	71·1	103·0	44·7	3773
Chittagong,	103·73	77·7	99·0	45·4	90
Cuttack,	55·60	80·7	118·0	48·8	...
Darjiling,	118·24	54·0	84·2	26·0	6885
Deesa,	23·75	79·7	111·2	39·2	474
Dehli,	27·30	72·7	121·2	31·8	715
Goalpara,	93·34	75·0	99·7	42·0	120
Hazaribagh,	48·52	74·4	110·0	37·3	2010
Jacobabad,	4·86	77·5	119·5	31·6	213
Jubbulpur,	52·32	75·3	114·5	32·3	1306
Kandy,	81·27	76·4	88·2	61·4	...
Kurachee,	7·61	77·6	110·4	41·5	35
Lahore,	21·48	75·1	127·0	27·0	1000
Lucknow,	41·69	78·0	119·0	30·0	364
Madras,	48·51	82·4	109·6	61·4	53
Malgaon,	23·62	78·6	108·3	39·3	1480
Moulmein,	189·39	79·6	101·5	56·2	87
Multan,	7·52	76·0	127·8	26·0	408
Murree,	58·44	55·8	103·0	18·0	7518
Nagpur,	43·43	78·8	117·1	43·2	1025
Nowera Elia,	99·45	59·1	79·0	23·0	...
Pachmarhi,	80·93	69·0	107·0	30·0	3538
Patna,	30·00	...	...	...	172
Poona,	30·41	77·6	101·2	56·1	1800

METHIN.

MEWAR.

STATION.	Rainfall. Inches.	Mean Heat. Fahr.	Max. Temp.	Min. Temp.	Altitude. Feet.
Port Blair, . . .	117.39	80.6	99.0	67.0	...
Rangoon, . . .	99.69	79.6	106.7	57.4	41
Rawal Pindi, . .	33.89	69.2	124.6	20.0	1709
Roorkee, . . .	40.92	74.6	116.6	29.7	905
Sambalpur, . . .	54.18	79.2	114.5	36.5	459
Saugor, . . .	47.23	75.8	114.0	40.3	1944
Seoni, . . .	49.02	74.4	112.0	37.4	2043
Shillong, . . .	86.93	62.2	84.0	32.5	4951
Sibsagar, . . .	93.98	73.0	99.5	39.1	460
Silchar, . . .	147.54	75.5	99.0	42.0	87
Simla, . . .	70.20	54.5	90.0	20.0	7159
Sirma, . . .	15.17	75.7	116.8	29.9	702
Trichinopoly, . .	38.70	82.9	107.9	59.6	275
Wellington, . . .	40.82	61.2	83.4	37.4	6160

METHIN, the wild cow of the hills near Cachar. It is the *Gavæus frontalis*, a large, unwieldy animal, growing to a size beyond that of the buffalo, and is reared by the Kuki and hill tribes for slaughter.

METHONICA SUPERBA. Linn.

Gloriosa superba, Linn.

Eesha-nungula, . BENG. | Kookora-neja, . . BENG.
Ulatchandul, Longool, ,, | Cariari, . . . HIND.

A pretty flowering plant of India.

METROSIDEROS (from μέτρον, the heart of a tree, and σίδηρος, iron), a genus of plants belonging to the natural order Myrtaceæ, so named because of the hardness of their inner woods. *M. lucida*, a beautiful tree, occurs as far south as Auckland Islands, in lat. 50½° S. *M. polymorpha*, a tree of the Sandwich Islands, is said to be the plant from which are made the clubs and other weapons employed in warfare by the South Sea Islanders. *M. vera*, of China? Java, and Amboyna, is said to furnish the iron-wood of China. It grows among rocks. *M. diffusa* is a tree of New Zealand. The Aki or lignum vitæ of New Zealand, the Rata and the Pohurucawa of the same country, all belong to this genus. *M. buxifolia*, Allan Cunningham, is the Aki, a rambling shrub adhering to trees, and climbing by means of its lateral roots to the summits of the loftiest trees in the forests of Wangaroa and the Bay of Islands. Dr. Roxburgh described (ii. p. 477) *M. comosa*, *M. linearis*, *M. sessile*, and *M. vera*.

Metrosideros tomentosa, A. Cunningham, is the Pohurucawa of New Zealand, a timber tree of the rocky shores of New Zealand and North Island, growing to 80 feet in height, with a stout, short trunk; timber suitable for framework in ship-building, for jetties, docks, sills.

Metrosideros vera, Rumph., a tree of Amboyna and Java. Flower small, white. The Chinese and Japanese value the wood of this tree, which they apply to many purposes, as the making of rudders, anchors, etc., for their ships and boats. The bark is used in Japan as a remedy in mucous discharges, diarrhoea, and dysentery. It is usually mixed with some aromatic, as Penang cloves or nutmeg.—Roxb.; Voigt; Von Mueller; Hogg; Eng. Cyc.

MEWA. HIND. Fruit. Kala mewa is *Solanum verbascifolium*. Mewa farosh, a fruit-seller, usually of the Mali caste, but in the Mahratta country Brahmans and Kalawant or singers follow the business in towns. The fruit-sellers in the villages are sometimes Muhammadan gardeners.

MEWAR, an independent principality in Rajputana, often called by the name of its present capital, Udaipur. It is ruled by a maharana, in alliance with the British Government. The capital is in lat. 24° 37' N., and long. 37° 49' E., and is 2064 feet above the sea. The territory lies between lat. 23° 46' and 25° 56' N., and long. 72° 50' and 75° 38' E., with a population of 1,443,144 souls. Mewar is the most ancient but not the most powerful state of Rajputana. The Mewar ruler is the elder branch of the Suryavansi, or children of the sun. Another patronymic is Raghuvansi, derived from a predecessor of Rama; but Rama is the focal point of each scion of the Solar race. To him, the conqueror of Lanka, the genealogists endeavour to trace the Solar lines.

The ruling chief is considered by Hindus to be the direct representative of Rama, from whom was descended Kanak Sen, who was the founder of the Udaipur family about A.D. 144. The families of Dungarpur, Sirohi, and Partabgarh are offshoots from the same line. The titles of several Rajput claimants are disputed; but the Hindu races yield unanimous suffrage to the prince of Mewar as the legitimate heir to the throne of Rama, and style him Hindua Suraj, or Sun of the Hindus. Hindu-pati, chief of the Hindu race, is a title appertaining to the ranas of Mewar, but was assumed by Sivaji and many vassal Rajputs.

The Mewar ruler is universally allowed to be the first of the 36 royal tribes, nor has a doubt ever been raised respecting his purity of descent. Many of the royal tribes have been swept away by time, but the genealogist has filled up their place with others, mere scions of some ancient but forgotten stem. With the exception of Jeyulmir, Mewar is the only dynasty of these races which has outlived eight centuries of foreign domination in the same lands where conquest placed them. The ruler still possesses nearly the same extent of territory which his ancestors held when Mahmud of Ghazni first crossed the Indus to invade India; while the other families now ruling in the north-west of Rajasthan are the relics of ancient dynasties driven from the pristine seats of power, or their junior branches, who have erected their own fortunes. This circumstance adds to the dignity of the maharana of Mewar, and is the cause of the general homage which the maharanas receive, notwithstanding diminution of their power. The capitals of Mewar have been Chitore and Udaipur. After the destruction of the Balhara monarchy of Saurashtra, and two centuries' sojourn of the family in the Bhandar desert, Bappa or Bappa conquered Chitore, and founded a dynasty in A.D. 727. The hereditary title was changed from Gehlot to Aditya. The title of the family has, however, undergone many changes. It was first Suryavansa, then Grahilot or Gehlot, then Aharya, and now Sesodia. These changes arise from revolutions and local circumstances.

It was by Bappa Rawal that Muhammad Kasim, the lieutenant of the khalif Walid, is supposed to have been defeated upon his advance to Chitore after the conquest of Sind. Between Bappa and the accession of Samarsi to the throne of Udaipur a period somewhat exceeding four centuries intervened. In 1193, the sovereignty of Chitore was given to the younger branch; the

elder having been expelled, fled to the wilds, founded the city of Dungarpur, and became the ancestor of the ruling family of that state. In 1201, Rahup was in possession of Chitore. He changed the title of his family and tribe from the clan name of Gehlot to the subdivisional name of Sesodia, and that of its prince from Rawal to Rana. From Rahup to Lakumsi nine princes of Chitore were installed. In the rule of this last-named prince (A.D. 1275-1290), Ala-ud-Din besieged Chitore; and in A.D. 1303 the imperial forces captured and sacked it. It was, however, almost immediately afterwards recovered by Hamir, who then ruled in Mewar. On the 15th of March 1527, Baber drew up his army in front of the entrenchments. A desperate conflict ensued for several hours, in which Baber ultimately obtained a decisive victory, and Rana Sanga retired with the wreck of his gallant army towards the hills, resolved never to enter his capital except in triumph.

Rana Udai Singh was the youngest son of Rana Sanga. During his rule in 1568, Chitore was taken by the emperor Akbar, with great slaughter. On the loss of his capital, the rana retired to the valley of the Girwa, in the Aravalli Hills, where he founded the city of Udaipur, henceforth the capital of Mewar. But Akbar's successor, Jahangir, while striving for the entire subjugation of Mewar, was twice defeated by Rana Umrā.

A section of the Aravalli range of mountains extends over the south-western portion of the state, from the city of Udaipur to the frontier of Sirohi, whence it stretches northwards through Kumalmir towards Ajmir, separating Udaipur from Jodhpur. Northward of Kumalmir, this mountain tract is called Mhairwara; its breadth here varies from 6 to 15 miles, and its deep and rugged valleys and gorges have in all ages afforded haunts to the Bhils, Minas, and Mhairs, and other aboriginal or half-blood tribes. Southward of Kumalmir the range is inhabited by communities of the aboriginal races acknowledging no paramount power, and paying no tribute. Aborigines occupy the several hill ranges, viz. the Mhairs on the north-west, the Bhils on the south, and the Minas on the north-east. The Mhairs and Minas live in villages; but Bhils generally occupy a pal, that is a number of houses, each built upon a hillock at some little distance from its neighbour. A pal, therefore, may cover several square miles of ground. The object of the Bhils in thus building their dwellings is to render it impossible to surprise a whole village at once. A single individual may be arrested, but the warning cry which he will utter gives the alarm to the whole community, and in a few minutes, the war-cry being taken up from hill to hill, the country seems suddenly to swarm with semi-naked savages, armed and prepared to attack the intruder. The Bhils are under the partial control of their own chiefs, but rarely acknowledge any other power. And it is generally difficult for the Udaipur darbar to coerce them, for the climate is unhealthy, supplies are scarce, and the country is extremely difficult. There are few wilder or more lawless tracts throughout the length and breadth of the Indian Peninsula.

The zinc mines of Mewar were once very pro-

ductive, and yielded no inconsiderable portion of silver and gold; but the caste of miners is extinct, and political reasons during the Moghul domination led to the concealment of such sources of wealth. The most celebrated of these mines are undoubtedly those of Jawar, where the ore is found in veins 3 or 5 inches thick, and sometimes in bunches in quartz rock, and mixed with other stone. The pieces are broken with a hammer, and freed from the quartz rock with which it is mixed. The pure ore, being very friable, is then pounded and freed from quartz, and placed in crucibles some 8 or 9 inches high and 3 inches diameter, with necks 6 inches long and half an inch in diameter. The mouth being fastened up, the crucibles are inverted and placed in rows on a charcoal furnace, when the ore is fused in about three or four hours. If pieces of the quartz are allowed to remain with the ore, the crucibles break. From each crucible the quantity of metal collected does not vary much. Copper of a very fine description is likewise abundant, and supplies the currency. Surma, or the oxide of antimony, is found on the western frontier. The garnet, amethystine quartz, rock-crystal, the chrysolite, and inferior kinds of the emerald family, are all to be found within Mewar. Iron is abundant on the now alienated domain on the Chambal, but lead least of all. Marble quarries also added to the revenue. The rich mineral products enabled the Mewar family long to struggle against superior power, and to raise those magnificent structures which ornament their kingdom. In Mewar An was the oath of allegiance; in Col. Tod's time three things in Mewar were royalties,—a subject could not meddle with the An or oath of allegiance, the Dan or transit dues on commerce, and the Kan or mines of the precious metals. The rana of Mewar is the devan or viceroy of Siva, and when he visits the temple of Eklinga he supersedes the high priest in his duties, and performs the ceremonies.

The shrine of Eklinga is endowed with 24 large villages from the fisc, besides parcels of land from the chieftains.—*Tod; Captain Brooke; Aitcheson.*

MEWASI, a predatory, turbulent, tribe in North Gujarat. They occupy several villages in the ravines in the Nariad pargana, north of the Mahi river. They are settling to agricultural pursuits.

MEWAT, a tract lying south of Dehli, and including parts of the British districts of Muttra and Gurgaon, a considerable portion of Ulwar, and some of Bhurtpur. For many centuries its people were predatory, and gave great trouble to the Dehli rulers. They are now mostly all Muhammadans, but are of ancient Hindu race; and in the time of Prithi-raj, the chief of Mewat was one of his vassals. Raja Mangal, of Mewat, a Jadun Rajput, married a sister of a wife of Prithi-raj. In 1265, about 100,000 were put to the sword, and a line of forts was drawn along the foot of their hills. The whole of its towns were levelled to the ground by Jess-raj. The ruling race are called Mewati or Khanzada. They are famous in the history of the Dehli empire, under which they were distinguished soldiers. Since the close of the 18th century the territory has merged into Ulwar and Bhurtpur.

The mass of the population are the Meo. For many centuries they were highly predatory, and they are still noted cattle-lifters. They are different from the dominant Mewati race, who, however, are also Muhammadans, but are of the Jadu race. The Meo of Mewat are in fifty-two clans, of which the twelve larger are called Pal, and the smaller Got. Others of them are in Muttra, Bhurtpur, and Gurgaon. They claim to be Rajputs, but many of them are supposed to be of Meena descent. Though Muhammadans, they keep several Hindu festivals,—the Holi, Jan'm-ashtini, Dassera, and Diwali; and on the Amavas, or monthly conjunction of the sun and moon, Meo, the Ahir, the Gujar, etc., cease from labour. They do not marry in their own clan or pal. They sometimes sell their daughters.—*Malcolm's Central India; Rennell's Memoir; T. of H.; Campbell*, p. 103; *Tod's Rajasthan*.

MEYA or Mya, a martial race of Kattyawar and about Junagarh. In the year 1872, when the nawab of Junagarh was at Bombay, a Charun girl named Naghai pretended to be an incarnation of a Charuni Nagbai who flourished some centuries ago. She soon got a gathering of many persons, chiefly Meyas, with also some remnants of the Churisoma dynasty that preceded the present Baba rulers of Junagarh. They strove for the ousting of the nawab, and restoration of the Hindu dynasty, which had been driven out about A.D. 1714. With the consent of the Agency, the Meyas were disarmed, and some arrests were made, among them the son of Omra Meya. He was released, and a general rising occurred of the Meyas, who proceeded to the Camera Hill in the Gheer in a body, under Omra's leadership. The Meya are almost as bold and resolute as the Waghir.

MEYKANDA TEVAR is said to have been born at Vennai-nullur, on the river Pennai. His teacher was Paranjoti Tambiran. The Sivaguana Potam, his principal work, translated into English by the Rev. H. R. Hoisington, is considered of great authority.

MEYT AIS, or Burnt Island, called also Bird or White Island, lies in lat. 11° 13' N., and long. 47° 16' 30" E., is a barren rock 430 feet high, 5½ miles from Ras Hambais, the nearest point on the mainland. Many of the aged men, natives of the place, return to Meyt to die.

MEZEREON, the Mazreoon of Persian writers, is the *Daphne mezereum*. It is employed in medicine. *D. gnidium*, *D. laureola*, spurge laurel, and other species, are also employed in Europe. The bark of the latter forms much of what is used, even in England, for Mezecon.

MEZZALE. BURM. A tree of Amherst, Tavoy, and Mergui. Its wood is used for rulers, mallets, and walking-sticks; is of very handsome streaked grain, like palmyra wood.—*Captain Dancer*.

MHAIRWARA, a hill tract in the British district of Ajmir-Mhairwara, Rajputana, bounded on the north and west by Marwar and Ajmir, east and south by Mewar and Ajmir. It comprises a narrow strip of territory, 70 miles in length, varying in breadth from 1 to 15 miles, composed of successive ranges of huge rocky hills, the only level country being the valleys running between them. It was inhabited by the Mhair or Mer (see Mer), a predatory race of aborigines. Colonel Dixon's efforts were directed to civilising

them, and gradually they became attached to industrial pursuits. He built a new town, strong and well planned, with two miles of wall as a defence, and encouraged strangers, particularly shopkeepers and banias, to settle in it. Civilisation dawned on the face of those long-troubled hills in some of its most benignant forms. The Mhairwara Battalion transformed the wild mountaineers into brave and disciplined soldiers, whose influence on the pacification of the country cannot be overvalued. Mhairwara rapidly underwent a great social change.—*Cole; Campbell*, p. 45.

MHANG or Mang are scattered through all the northern parts of the Indian Peninsula, in the Bombay Presidency, Gujerat, Kandesh, the Konkan, and Kolhapur. They dwell outside the walls of the villages. They are tanners, workers in raw hides and leather, shoe and harness makers, messengers, scavengers, and executioners. They are never horse-keepers. Their avocations are the most abject, and only a very few have ever been known to have the ability to read or write. They claim the right to have for food all cattle and camels and horses that die of disease, but in some villages this is disputed by the Dher; and in the village of Dangopura, in 1866 and 1867, this point was for twenty months under litigation, the ultimate decision being in favour of the Dher.

In the Northern Dekhan are the sections Mhang Garoro, Hollar Mhang, Dekhan Mhang. The Mhang Garoro are also styled Pharasti or migrants, as they have no settled abode, but move from place to place begging. Their men and women assume other clothes, and smear their foreheads with the red kuku, a mixture of turmeric and safflower. They are also conjurors and sleight-of-hand adepts, from which they have their name Garori. The men also beat the dholak when practising their conjuring tricks.

The Hollar Mhang are village musicians; at marriages, play on the sannai, a wooden musical instrument, and beat the dafra; they are also labourers, and go messagers.

The Dekhan Mhang make brooms and mats from the date palm; are also labourers, bring wood, marry girls under age, fall at the foot of the god Hanuman, but worship at a distance, not being allowed to approach the idol. They, like the Dher and the humble native Christian, are also prohibited approaching the house of any Hindu, but stand some yards off and intimate their presence by calling out baba, or maharaj, or aya, i.e. father, great chief, lord, and, as with the Dher, everything they have brought and everything they touch, as also the place they touch, is unclean. If it be a metal dish it is passed through fire, and if cloth or other material, it is washed, or sprinkled with water, or placed on the ground for earth purification. They mount on horseback in procession to their marriage, a privilege which they prohibit to the Dher, and to the Teli or oilman.

The Mhang worship the leather ropes which they make. They also make cakes, which they place in the ground, and over it five stones and a lamp, and worship these. They worship generally all the local deities or village gods, the Ammun, Ai, Mata, Musoba, Mari Ai, Devi, Kandoba, etc., and the Mangir or ghosts of deceased relatives. Their Mangir is the form of a human being engraved on silver or copper, intended to represent a deceased father or mother; sometimes it is

a casket of copper, containing a silver figure of a man. The Mangir is worshipped at the dewali and dassarā, and at ūmas or moonless nights, and full moon and anniversaries. The figure is worshipped by washing and burning frankincense. They bury or burn their dead. They place the corpse in the ground, then bring a potful of water from the river, pour it on the body, and cover the dead with earth; after three days they take food and place it over the dead.

MHLECHCHA, a term applied by the Aryan immigrants to the peoples whom they found occupying India. This name long continued to be applied to all the unsubdued tribes in India. The aboriginal inhabitants of India seem to have been subdued and transformed from Mhlechchas into Sudras by slow degrees. In the age of Menu they retained their independence, under the appellation of Mhlechcha in Bengal, Orissa, and the Dekhan; but in the earlier period which is referred to in the historic legends of the Mahabharata, the Mhlechcha and Dasya are mentioned as disputing the possession of Upper India itself with the Arya, and, in conjunction with certain tribes connected with the Lunar line, they succeeded in overrunning the territories of Sagara, the thirty-fifth king of the Solar dynasty. The Mhlechcha are alluded to in the Mudra Rakshasa, a fact corroborative of that drama's being written in the 11th or 12th century A.D., when the Pathan princes were pressing upon the Hindu sovereignties. To the Hindu, every man not twice born is a Mhlechcha.—*Hind. Theat.* ii. p. 251.

MHOW, a town and British cantonment in Holkar's dominions, 14 miles S.W. of the Indore Residency. The town is built on the Gunber river, in lat. 22° 35' N., and long. 75° 48' E. The cantonment is 1½ miles to the S.E., 2019 feet above the sea.

MILUD, a beer made by the Abor. It is palatable when fresh brewed.

MHYE rises in a small plain five miles west of Amjherra, and shortly after passing Bhopawur pursues a northerly course till it reaches the upper confines of Bagur, where the boundary hills give it a sudden turn westward past Mongana. Soon, however, the high mountains of Mewar bend it south, and this course it pursues, with little deviation, till it falls into the sea in the Gulf of Cambay, near the town of that name. It is not navigable above 12 or 15 miles from its mouth, owing to its numerous shallows.

MIA. **HIND.** The temple of the Sintu creed of Japan.

MIAKO, a town in Japan. Fudsiyama is a high volcanic mountain of Japan, which tradition reports to have risen in one night, and as it rose there occurred a depression in the earth near Miako, which now forms the lake of Mit-su-no-umi. In A.D. 864 the mountain burst asunder from its base upwards, and at its last eruption in 1707 it covered Yedo with ashes. It is a sacred mountain. It is crested with snow, and presents the appearance of a truncated cone; the gathering of a white cloud around its summit is a sign of bad weather. It is occasionally ascended by Japanese pilgrims for the worship of the god of the winds.

MIAN. **HIND.** **PLUR.** Sir, master; an honorific title applied to holy men; a respectful term used by a Hindu to a Muhammadan, who himself

generally applies it to a pedagogue or to a son. The village schoolmaster has always the honourable epithet of Mean-ji. This word for Sir is known to the Bedouins all over El-Hejaz; they always address Indian Muhammadans with this word, which has become contemptuous, on account of the low esteem in which the race is held.—*Burton's Mecca; Tod's Rajasthan.*

MIAN, a branch of the Kaka Khel Khatak, in the Hashtnagar division of the Peshawur district. They are carriers.

MIANA. **HIND.** A palanquin, a sword sheath.

MIANA, a predatory race in Kattyawar. The Miana of Mullia in Mucha-Kanta, on the banks of Mucha river, have a thakur, but own allegiance only to their own chowhattia or heads of tribes.

MIANA, also called Mai, Miani, or Moana, a tribe in Sind, fishermen and boatmen. The Miana form a large tribe, apart from either the Jat cultivator or the Baluchi. They are the most active and athletic race in Sind, with a buoyancy of spirits and general frank bearing unknown to the other classes. All have villages immediately on the banks of the river, their boats and nets furnishing all that is required for their maintenance. In many parts of the stream, especially near lake Manchur, whole families live entirely after the Chinese fashion in their boats, having no other habitation. The women share the labour equally with the men, and a sturdy lass is generally seen steering or paddling the boat whilst the man works at the nets, a child being often suspended in a network cot between the mast and rigging of the craft, which is always very small and light for the advantage of easier navigation amongst the shoals and creeks. The Miana is the only pilot to be trusted in its intricate channels. The pulla fishery, for which the Indus is so celebrated, is conducted by this people. Placing on the water a large earthen vessel, and commending it to the care of Allah, the fisherman casts himself on it in such a manner that the mouth of the vessel is completely closed by the pressure of his stomach; he then paddles himself by means of the action of his hands and feet into the centre of the stream, holding deep in the water a forked pole about 15 feet in length, to which is attached a large net; in his girdle he carries a small spear, and a check string attached to the net indicates the moment when a fish is entangled. The spear is used to kill the fish when drawn up after capture, and the jar receives the spoil. The Miana are dissipated, and a large proportion of the courtesans and dancing women of the country are from this tribe; they are of very dark complexion, but possess regular features, and some of the women would be considered remarkably handsome. The Miana are also noted for the manufacture of mats and baskets, which are beautifully woven from the high reeds and strong grasses growing on the edge of the river. The Miana, when found near towns and villages, occupy a distinct quarter, generally outside or apart from the other inhabitants. Here they sell spirits, the men beat drums and sing, and the women dance and perform all the usual acts of courtesans calculated to allure the passing stranger.—*Postans' Personal Observations*, pp. 58-60.

MIANEE, a small village in Sind, 6 miles north of Hyderabad city. Here Sir Charles Napier, on the 17th of February 1813, with a force of 2800 men

and 12 pieces of artillery, encountered a Baluch army numbering 22,000, strongly posted on the banks of the Fulali. The enemy were totally routed, 5000 men being killed and wounded.

MIAS. JAV. The orang-utan of the Malay, species of *Pithecus*. One kind, called *Mias* chappan or *Mias* pappan, has the skin of the face broadened out to a ridge or fold at each side. One killed by Mr. Wallace was 7 feet 3 inches across the arms, and 4 feet 2 inches from head to heel. The small *mias* is called by the Dyak race *Mias* kassir. They live in the low swamp in forests. Their food consists of fruit, with leaves, buds, and young shoots. They rarely descend to the ground. The Dyaks say that only the crocodile and python will attack the orang-utan; that when fruit is scarce it goes for food to the banks of rivers and to the sea, and the crocodile tries to seize it, but it gets on the crocodile, beats him with its hands and feet, tears him and kills him by main strength, tearing open his jaws and throat. The python it seizes and bites and kills. The orang-utan is confined to Borneo and Java. A full-grown *mias* is quite a match for a naked man, and generally before he can be killed contrives to bite off two or three fingers, or otherwise maim the individual. Many Dyaks are to be seen thus mutilated by them.

Mias chapin is *Pithecus* *curtus*. *Mias* pappan, a species of orang-utan of Borneo. *Mias* rambi, *Pithecus* *Brookei* of Borneo.—*Wallace*, i. 54, 60.

MIAU-TSZE or *Miao-tzu* and *Mau-tzu*, are aboriginal tribes in the various highlands in the S. and W. Provinces of China proper. They are regarded by the Chinese as barbarians, and are designated by derogatory and contemptuous appellations. Recent travellers, and particularly Mr. Colquhoun, in his *Travels across Chryse*, have given notices of them: the more important are as follows:—

Yuh-lun follow agriculture, and weave cloths. They are skilled archers, and excel in the use of spears and javelins.

Yang-tung-lo-han are farmers, traders; their women rear silk-worms.

Kih-mang-ku-yang live in excavations in high cliffs, some reached by ladders. Their district is in Kwang-shun-chau.

Tung-miau cultivate cotton, and enter China as labourers. They dwell in Tien-chu, near Kin-ping. **Shwui-kin-miau**, i.e. the water-family *Miau* of the Li-po district. The men are fishers and hunters, and the women spin and weave.

King-kin of Li-po-hien have a festival on the last day of the 10th month, and sacrifice to demons. In the 11th month, the unmarried folk dance and sing in the fields, and choose life partners for themselves. This is called marrying at sight. Both men and women wear blue-flowered handkerchiefs on their heads.

Tsing-miau dwell in the Ping-yuen-chau. They are farmers, but not skilful; they weave clothes for themselves.

Luh-ngoh-tze of the Wei-ning district in Ta-ting-fu, are both black and white; the women wear long petticoats. They bury their dead in coffins; and, after a year, they sacrifice, and reopen the graves, brush and wash the bones clean, wrap them in cloths, and reinter them, and thus clean them annually for seven successive years. The men wear a slender head-dress.

Peh-ngoh-tze, or the White Foreheads, dress in white; men with short, and women in long petticoats.

Yen-kiu-man dwell in Sz-nan-fu, and are fishermen.

Tung-kiu-miau inhabit Li-po-hien. They wear blue-dyed cloths which reach to the knees. They grow cotton and weave; they are illiterate, and put

notches on sticks as memoranda. On New Year's day they make offerings of fish, flesh, rice, and spirits.

Kiu-ming and **Ku-sing**, cultivators in Fuh-shan-chau, are violent, quarrelsome, treacherous, and given to drink, readily seizing weapons in their drunken bouts.

Mau-tau-miau, farmers in the Hia-yu and Ku-chau districts. The women dress and ornament their hair with fan-shaped garlands of silver thread, fastening it with a long skewer; they wear two ear-rings in each ear, and a necklace. The cuffs and edgings are worked with figured silk. Paternal aunts' daughters must marry their cousins.

Tsing-kiang-heh, or black tribe of Tsing-kiang, wear silver ornaments, and the young folk select their own partners.

Lu-ku-heh, or Black *Miau* of Pa-chai and Tsing-kiang, are pastoral, but dwell in houses, their cattle below. They are diligent farmers. Their dead are kept in coffins for a period, and all the accumulated dead are then interred.

Pa-kehai-heh, or the black tribes of the eight cantonments of the Ta-yun-fu district, are violent. They fringe their sleeves with flowered cloth. They erect a 'Malang' or hall, at which the unmarried assemble and pair off.

Heh shan, or tribes of the black hills of Tai-kung in Tsing-kiang, live in the recesses of the mountains, and are predatory.

Hieh-sang-miau, black subdued tribes of Tsing-kiang, are highly predatory.

Kau-po-miau, or Crown Board *Miau*, are usually black. They cultivate on the higher plateaux.

Yu-fah-miau of Sien-tien in Kwei-ting, at marriages and solemn periods sacrifice dogs. The men wear short petticoats, the women short bodices and long petticoats, and fasten their hair with a long bodkin.

Tsing-chung-miau live in Tai-kung-ting. The men are notoriously predatory, and ransom their captives; their women plough and weave.

Li-min-tze of Ta-ting-fu, Kien-si-chau, Kwei-yang-fu, Ngan-shun-fu, etc., are traders, and rear cattle and sheep, spin and weave. They are the most civilized of all the *Miau* tribes.

Peh'rh-tze, or the Whites, live in Wei-ning-chau, rear cattle and horses.

Peh-lung-kiu, or White Dragon families, live in the district of Ping-yuen in Ta-ting-fu. They dress in white, and collect lac and forest produce. They are a moral race.

Peh-chung-kin live in Li-po-ting, and are agricultural. The men wear a fox-tail on their heads. The women are small but fair and well made, and wear blue-dyed clothes.

Tu-kih lau live in Ka-ning-chau, and plait grass into clothing. They are labourers to the Ko-lo people.

Che-chai-miau, or 600 wild *Miau* families in Ku-chau-ting, are descendants of 600 soldiers of the army of Ma-san-Pau, who took refuge there in the time of Tai-tsung of the Tang dynasty. The men are variously occupied. The unmarried arrange their own weddings.

Si-ki-miau live in the Tien-chu district. The women have green cloth wound round their thighs, with petticoats reaching to the knees. The young people select their own partners, and after the birth of a child a marriage present of a cow is given.

Hu-lu of Lo-kuk, in the Ting-pwan-chau district, are violent and predatory, despising agriculture.

Hung-chau-miau of Li-ping-fu are agricultural, and the women spin and weave cotton cloths and grass-cloth. The Hung grass-cloth is famed.

Heh-lau-miau of Tsing-kiang-ting dwell on the plateau. They have a town hall where public matters are discussed.

Heh-kiuh, or Black-leg *Miau* of Tsing-kiang-ting, are predatory, carrying spears and knives. Before an expedition, they draw omens from the fighting of two crabs. A peaceful one could not get a wife.

Twan-kwau-miau, dwelling in Ta-yan-fu. The men have short dresses and broad trousers. The women wear petticoats, and have their body exposed from

the waist upwards. They are very intemperate. They collect and sell a red grass.

Narrow-headed Miao of Yang are agricultural, the women taking their share in the field work. Both men and women dress their hair into a peak. The first day of the 11th month is held as a festival.

Lang-tze-miao of Wei-ning follow the couvade practice. On the birth of a child, the husband takes to bed, and the wife cooks food for the husband, and goes to work in the field, and suckles the child. Only after a month the husband goes abroad. When a parent dies, so soon as life is extinct, they twist the head round backwards, so that, as they say, he can see who is behind him.

Lo han-miao live in Tau-kiang and Pa-chai-ting, and are Buddhists, making offerings on the third day of the third month. The men let their hair fall loose behind, and wear a fox-tail on their heads.

Luh-tung-i, or the Six-valley Barbarians, live in Liping-fu, and are able to read and write. The women spin and weave, wear many-coloured clothes, and bind their legs with cloths in lieu of buskins. Unmarried persons exchange portions of their dresses, and, on a fortunate day, the spinsters, each carrying a blue umbrella, convey the bride to her father's home, where the bridegroom privately visits nightly, until the first child is born, on which the bride is taken to her husband's home.

Crow-miao live in Kwei-yang; they fringe the edges of their clothes and sleeves with white cloth. They dwell on the higher hills, and cultivate millets, and bury their dead on the summits of the hills.

Other tribes mentioned by Mr. Colquhoun are the Ching-pao or Ka-Khyen, the Lao, Laos, Pai, Thai or Shan, Po-Loung, Pou-Ia, and Yeou.—A. R. Colquhoun; Cooper. See China.

MICA.

Kobuh-ul-arz, . . .	ARAB.	Glimmer, DA., DUT., GER.
Kin-sing-shih, . . .	CHIN.	Tulk, . . . DUK., PERA.
Yin-sing-shih, . . .	„	Abraka, . . . SANSE.

Mica is one of the constituents of granite, gneiss, and mica-slate, and gives to the latter its laminated structure. It also occurs in granular limestone. It is found abundantly in India and other parts of the world. The principal mica mines of Behar are on the northern face of the Vindhya Hills, where the three districts of Behar, Monghir, and Ramgarh meet. The most westerly mine is situated 37 miles in a S.E. direction from Gya, and is in the district of Behar; the most easterly mine is about 60 miles distant in Zillah Monghir, the whole of the intermediate 60 miles being more or less productive of the mineral. The mica reaches the surface in three different states, viz. the good, hard, and serviceable mineral; the soft, wet, and flimsy mineral; and the chipped and powdered mineral. The tests as to whether the mica is good for anything, or whether, as the natives say, 'it is alive,' are its firmness, specific gravity, and the power of reflecting the countenance free of contortions; the latter test showing the perfect parallelism of its individual plates, and consequent likelihood to split well; the heavier the mineral and the more perfect the reflection, the more valuable is the mineral considered; all the plates not standing the necessary test, or of a soft and flimsy nature without any of the brilliant sparkle of the better sort, the natives call 'dead mica,' and it appears to be in a state of decay. The plates of the superior kind are used in all the large Gangetic cities and towns by the native draftsmen, whose beautiful productions in body colours must be familiar to most people; by the lamp and toy-makers; by the Muhammadans for ornamenting their tazias

or tabut, as well as for ornamenting umbrellas and boats, and for making artificial flowers. The second and third sorts are pounded and used for ornamenting toys, pottery, the inside of houses, for sprinkling over clothes and turbans at feasts, the sparkle from which by torch-light resembles diamonds; but the great consumption of the inferior mineral takes place during the Holi festival, during which period the abir of pounded mica, mixed with the flour of the small grain Kodu, *Paspalum stoloniferum*, Linn., and coloured with some red-colouring matter, is freely sprinkled over the votaries of those bacchanalian orgies. Mica is the soft shining scaly part of granite, and is very liable to decay from constant damp; it passes into a greasy or soapy earth or loam. Mica is mixed with lime to form a beautiful glistening plaster for native buildings.

In Russia it is used as a substitute for glass, and hence it is called Muscovy glass. The very thin laminae are employed for examining objects under the microscope. Slips of mica afford a convenient substitute for platinum foil in chemical experiments on the effect of heat on organic bodies, and they are useful for covering photographs. It readily splits into transparent, elastic flakes. It consists of nearly equal parts of silica and magnesia, and about 6 per 100 of lime. Mica has been used as a substitute for glass; in the taking of collodion pictures, the collodion film adheres to it very firmly. On it negatives can be as easily carried, without injury, in a portfolio, as on paper, and positives backed with colour and a plain varnish can be pasted, without risk of deterioration, in a book. The mica being attached to a piece of glass by its back being moistened, may be then coated, exposed, and developed, after which it may be detached and fixed. Upwards of 1000 maunds, or nearly 40 tons, are sent to Calcutta annually, of the value of Rs. 7500 at Rs. 7½ per maund.—Capt. Sherwill, *Beng. Ass. Soc. Jour.*, 1851; *Cat. Ex.*, 1862; *O'Shaughnessy*.

MICHAEL or Mikail, according to Muhammadan belief, the angel who has charge of heavenly bodies, of breathing creatures, and of the angels tenanted in the seventh paradise.

MICHELBORNE, SIR EDWARD, obtained from James I. of England, in 1606, a licence to trade to Cathay, China, Japan, and Cambodia. On arrival in the east, he plundered the native traders among the islands of the Archipelago. He obtained considerable booty, but brought great disgrace on the English name, which interfered with the English Company's trade at Bantam.

MICHELIA, a genus of plants of the order Magnoliaceae, some of which furnish useful woods. *M. kisopa*, Buch., is a tree of the forests of Nepal. *M. aurantiaca*, Wall., Sa-ga, BURM., of Pegu, has large orange-coloured, fragrant flowers. *M. doltsopa*, Buch., of the forests of Nepal; wood fragrant, excellent, used for house-building. *M. excelsa*, Bl., *Magnolia excelsa*, Wall., is a Nepal and Darjiling tree; yields valuable timber, of a fine texture, at first greenish, but soon changing into a pale yellow. *M. lanuginosa*, a *Magnolia* of the Himalayas. *M. oblonga*, Wall., a tree of Khasya. *M. suaveolens*, the Champaca of Java; its small flowers are in much esteem by the Chinese women. Mr. Gamble notices *M. Cathartii*, Nilagirica, and Pundwana. *M. fuscata*, Bl.

the *Magnolia fuscata*, *Andr. B. Repos.*, a tree of China. Flowers largish, cream-coloured, purple-edged, dark, and fragrant. Flowers in March and April, and fruits in October.—*Bennett*; *Voigt*.

MICHELIA CHAMPACA. *Linn.*

Champaka, . . .	BENG.	Bongas jampacca, MALAY.
Champa, . . .	„	Sappoo, . . . SINGH.
Sa-ga, . . .	BURM.	Shembugha, . . . TAM.
Sumpaghy, . . .	CAN.	Champakamu, . . . TEL.
Chen-poo-kia, . .	CHIN.	Kanchanamu, . . URYA.

A large tree of most parts of the E. Indies and China. It grows in the Panjab at Kalka and Kangra, and at Chamba at 2000 to 3000 feet. Those at Chamba attain to 7 or 8 feet in girth, and are 60 or 70 feet high. Ploughshares are occasionally made of the wood. In Ceylon it is used for drums, carriages, palanquins, and in buildings; it is prized for well-works, verandah posts, and also for furniture, as it polishes well, though it is apt to warp. It flowers and fruits nearly all the year, and has large, deep yellow, intensely fragrant flowers. In China, its bark is used with that of other Magnoliaceæ to adulterate cinnamon.

The beautiful golden-coloured flower is held in high estimation by the Hindus, by whom it is dedicated to Krishna, and is one of five with which the Hindu Kama, god of love, ornaments his arrow. When Vasant'ha, the personified spring time, is preparing the bow and shafts for his friend,—

'He bends the luscious cane, and twists the string
With bees, how sweet! but oh! how keen their sting!
He with fine flowerets tips the ruthless darts,
Which through five senses strike enraptured hearts:
Strong Chumpa, rich in odorous gold;
Warm Amer, nursed in heavenly mould;
Dry Nag-Keur, in silver smiling;
Hot Kittikum, our sense beguiling;
And last, to kindle fierce the scorching flame,
Love-shaft which gods bright Bela name.'

Sir William Jones says its aromatic scent is so strong as to be offensive to bees, which never alight upon it. Rheede informs us that the powder of the bark of the root of this tree is given to excite the flow of the menses. The aromatic Sumpunghee oil of Madras is obtained from this tree. It is one of the few Indian trees embalmed in English song,—

'The maid of India, blest again to hold
In her full lap, the Champac's leaves of gold,
Thinks of the time when, by the Ganges' flood,
Her little playmates scattered many a bud
Upon her long dark hair.'

Its rich orange, exquisitely fragrant blossoms are used by Burmese maidens to adorn their long black hair. The bark is bitter and aromatic, and appeared to Dr. O'Shaughnessy to possess the properties attributed to the *Magnolia glauca*. It may be given in powder in intermittent fevers, in doses of from 10 to 30 grains.

MICHELIA NILAGIRICA. *W. Ic.*, *Zenk.*

M. Pulneyensis, *Wight*.

Pila champa, . .	HIND.	Shembugha maram, TAM.
Walsa-pu, . .	SINGH.	Sampanghy maram, „

Var. a. Ovalifolia, *Wight*; petalis cum sepalis sepiissime 9.

Var. b. Walkeri, *H. f. et T.* (*M. Walkeri* and *M. glauca*, *Wight*); petalis cum sepalis sepiissime 12.

This large tree grows in the Central Province of Ceylon up to elevations of 3000 to 8000 feet. It is rare in the Walliar forests, being alpine in its tendencies, and is common on the Neilgherries.

Its wood is strong, close, fine-grained, and straight; a pretty olive-coloured mottled wood, not heavy, but too highly hygrometrical to be useful in other form than rafters or beams, it could be turned to account in house-building, and might with advantage be creosoted. In Ceylon, the most typical form of this plant is that called *M. Walkeri* by Dr. Wight. Its beautiful golden-coloured flowers are held in high estimation by the Hindus; the bark of the root of the tree is used medicinally in some female complaints. At the Madras Exhibition of 1855, a plank from this tree, contributed by Captain Cunningham of the Mysore Commission, had the extraordinary dimensions,—length 11½ feet, breadth 4½ feet, thickness 3 inches. The specimen was apparently from a tree of very great age.—*Thwaites*; *Wight*; *Beddome*; *M. E. J. R.*

MICO, a vegetable butter prepared in Japan from the *Dolichos bean*.—*Simmonds*.

MICROLÆNA SPECTABILIS? a tree growing at the foot of the Himalaya, which yields fibres for rope-making. It is one of the most numerous timber trees of Pegu, but the Burmese do not make use of it.—*Royle*; *M'Clelland*.

MICROLONCHUS DIVARICATA. —?

Biramdandi, . . . PANJAB. | *Rathomandi*, . . . PANJAB.

Used in special diseases to purify the blood.—*Powell*, i. p. 357.

MICROMELUM INTEGERRIMUM. *W. and A. Bergera integerrima*, *Buch.*, a shrub which grows on the banks of the Megna river. It has small greenish-white, fragrant flowers. *M. hirsutum* and *M. pubescens* are also known.—*Roxb.* ii. p. 376; *Voigt*, p. 149.

MICROMERIA MALCOLMIANA, *Dalz.*, used as a carminative, equal to peppermint.—*Dalzell*.

MICRONESIA, a designation proposed by Mr. Logan for part of the Indo-Pacific islands, peopled by the Negro. The Indo-Pacific islands he names Oceania.

MICRORHYNCHUS SARMENTOSUS? a sand-binding plant, growing on the shores of the Bay of Bengal.

MIDDLETON, SIR HENRY, an officer in the Maritime Service of the English E. I. Company, who commanded in their sixth voyage in 1610. Sent out for the sixth voyage to carry on a legitimate trade, he converted the expedition into a marauding one; in short, turned pirate. By plundering the trading vessels passing to and from the Red Sea, he obtained large quantities of goods, with which he proceeded to the Moluccas, where he died. See Lancaster.

MIDNAPUR, a town and a district in the Bardwan division of Bengal. The district lies between lat. 21° 37' and 22° 57' N., and long. 86° 45' and 88° 14' E. It is one of the most important districts of Bengal. Its chief rivers are the Hoogly and its three tributaries, the Rupnarayan, the Haldi, and the Rasulpur. The aboriginal tribes belong chiefly to the hills of Chutia Nagpur and Bankura, and dwell for the most part in the west and south-west of the district; the most numerous of them are Santals and Bhumijs.—*Imp. Gaz.*

MIDSUMMER ROOT.

Sang-pwan-hia, . . CHIN. | Fa-pwan-hia, . . CHIN.

In China, *Pinellia tuberifera*, *Arisæma ternatum*, *Arum macrorum*, and other aroids are gathered in the middle of summer, and have received this name. Their poisonous properties

are exhausted by frequent soaking and drying, and are then powdered and used as sulphate of potash.—*Smith*.

MIGI, a tribe dwelling to the north of the Aka, north of the Assam valley. They and the Aka intermarry; they are the more powerful; they rarely visit the plains except to support the Aka in mischief.—*Dalton*, p. 37.

MIGNAN, CAPTAIN R., author of a Winter Journey through Russia, the Caucasian Alps, and Georgia, and thence into Kurdistan.

MIGNONETTE, *Reseda odorata*, is a general favourite in all countries, and grows in great luxuriance on the plains of India during the cold months.

MIGRATION of birds to and from Southern Asia, says Mr. Hodgson, seems to take place across the mountains of Nepal. The wading and natatorial birds, generally, make a mere stage of the valley on their way to and from the vast plains of India and Tibet, the valley being too small, dry, open, and populous for their taste,—especially that of the larger ones. Some, however, stay for a longer or shorter time in their vernal and autumnal migrations; and some, again, remain throughout that large portion of the year in which the climate is congenial to their habits. Of all of them, the seasons of arrival both from the north and from the south are marked with precision. They all arrive in the valley of Nepal, from the north, towards and at the close of the rains; and all as regularly reappear from the south upon, or soon after, the cessation of the hot weather.

The jackdaw, *Corvus monedula*, of Europe, Siberia, Barbary, West Asia, Peshawar valley, and Kashmir, may be seen in flocks in winter in the northern frontier of the Panjab, associated with the Cornish chough and the rook. The first two come from Kashmir, where they are found in great abundance during the summer; but the rook, if ever seen in Kashmir, is only a cold-weather visitor, and seems to come from the west, inasmuch as it is said to be common in Afghanistan. It appears at Rawal Pindi in flocks about the beginning of September; it is found in winter as far south as Lahore, and disappears entirely in March. The hooded crow has been brought from Northern Afghanistan, and is mentioned by Lieutenant Wood in his travels as common in Kunduz, but it is not found in Kashmir or in the Panjab. The chimney swallow makes its appearance in October, and leaves again for the straw-built sheds of Kashmir, where it breeds and spends the summer months. The white-rumped martin and sand martin are both likewise migratory, and repair to Kashmir and Ladakh in summer. The black and alpine swifts remain longer, and may be seen careering about during the summer evenings, especially after a shower of rain. The ringdove is a resident on the Sub-Himalaya. The common starling is plentiful in the north as elsewhere in Hindustan. The lapwing, *Vanellus cristatus*, arrives in flocks in the beginning of November, and departs for the west early in spring; its summer residence has not been found out, but it must be common in certain parts of Persia and Afghanistan. The common and jack snipe, with a few painted snipe, appear in the Rawal Pindi district in February and March.

Nearly all the water-fowl met with in the rivers

and marshes of the north-west come from the Tartarian lakes, where they breed.

The numerous wild-fowl of Tibet, swimmers and waders, migrate from India in March and April, and return in October and November. They all breed on the lakes and rivers of the country, and are very numerous; the eggs are found in great quantities; the people who live by gathering and selling these eggs never rob a nest of all its contents, but take about half the number.

After a sultry day it is usual to see the wire-tailed swallow skimming over the plains, and by the side of pools and streams a solitary green sandpiper, *Totanus ochropus*, is not rare. The brown-backed heron, *Ardeola leucoptera*, also occurs in such situations. The black ibis (*G. papillosus*), with its red crown, is seen during the cold months flying along with the rooks and European jackdaws; and besides, on the marshes about, the great and little bitterns, with the spotted tail, are not uncommon. Of the other European birds may be noticed the short-eared owl, moor buzzard, the pale harrier, *Circus Swainsonii*, the cormorant, ruff, and sniew, all coming and departing with the winter months.

Migration of Fishes.—The fishes inhabiting the fresh waters of India, Burma, and Ceylon may be divided into those which enter from the sea for breeding or predaceous purposes, and such as more or less pass their lives without descending to the salt water. Of the spiny-rayed or Acanthopterygian order, we have nineteen genera, the members of which are most numerous in the maritime districts and deltas of large rivers, while their numbers decrease as we proceed inland. Few are of much economic importance, if we except the common goby, spined-eels (*Macrambelidae*), the snake-headed walking-fishes (*Ophiocephalidae*), and the labyrinthiform climbing-perch and its allies.

The anadromous fishes, as the salmon and shad of Europe, and the hilsa fish, the *Clupea palasii* of India, migrate from the sea to the fresh waters to deposit their eggs in suitable localities.

The migratory hill fishes comprise various species of large barbels (*Barbus*), termed mahaseer or big-heads of India. In the Himalaya they ascend the main rivers, but turn into the side streams to breed. On the less elevated Neilgherry mountains, they deposit their ova in the main streams, because such are small. Occasionally the fish are too large to ascend these mountain rivers, and such breed at the base of the hills, but they ascend to other feeding grounds when the rivers are in flood, and after spawning, as the water of the river diminishes, they keep dropping gently down stream. They are thus separated from and are prevented eating the young fish. In the following season the fry descend to the larger rivers.

Many of the carps of the plains are migratory, and make great efforts to reach the heads of the rivers, leaping weirs and other obstructions raised to catch them.

The Ophiocephalidae of India are known as walking or the snake-headed fishes. They and other amphibious types are monogamous. Some of them reside in ponds; others prefer rivers, where they take up their residence in deserted holes which crabs have excavated in the banks. The pond species delight in lying at the grassy margins, where they respire atmospheric air

direct. The striped *Ophiocephalus* constructs a nest with its tail among the vegetation, and bites off the ends of the water-weeds. Here the ova are deposited, the male keeping guard; but should he be killed or captured, the vacant post is filled by his partner.

The hissar, *Callichthys*, of S. America, is likewise monogamous, constructing a nest, which it also defends. It is migratory.

Fishes which migrate in shoals for breeding purposes, as the mackerel, herrings, and some species of carp, are all polygamous.

The salmon, the shad, and the silurid *Ariinæ* do not appear to feed during the period of depositing their spawn. The *Clupea palasah* is an anadromous shad of India. It is known to the English as the pullah and hilsa or ilisha sable-fish, to the Tamil as the ulum, and to the Teling race as the palasah, while the Burmese call it nga-tha-louk. In Sind they ascend the Indus in February to spawn, descending in September. In the Cauvery river, when the first burst of the June monsoon fills the river, they pass up and continue to do so for the next four months. The Kistna river also fills in June, but it is a more rapid river, and the hilsa defers making the ascent until September or beginning of October, when the waters are subsiding. In the Godavery, a less rapid river, they ascend most numerous from July to September, and in the Hoogly and Irawadi they continue ascending throughout the June monsoon. The main bodies of these fish ascend the large rivers of India and Burma generally when the S.W. monsoon begins in June, but not always at the same period, dependent apparently on the rapidity of the current and other causes. That it is not solely due to the presence of rain-water flooding the rivers is evident, because those of the Indus and Irawadi are mainly caused by melting snows at this period, and likewise in the latter river these fishes push on to Upper Burma, to which country the monsoon scarcely extends, but where the inundations are due to snow floods. Shad are excellent eating up to the period when they have deposited their eggs, subsequent to which they become thin, flabby, and positively unwholesome. Fresh-water fishes do not appear to be so deleteriously affected by breeding. Dr. Day counted 1,023,645 eggs in an Indian shad, and 110,500 in a barbel (*Barbus sarana*), and in a walking-fish (*Ophiocephalus*) 4700.

The gar fish (*Belone*) and the flying-fish (*Exocoetus*) have filaments springing from their eggs for the purpose of attachment to contiguous objects. Among some of the marine silurids (*Ariinæ*) the male carries about the larger eggs in its mouth until hatched, or it may be only removes them in that manner from one place to another. Dr. Day netted many along the sea-coast of India with from 10 to 12 eggs in their mouths, and in one there were young fry just hatched.

The Sind fishermen float down the Indus resting upon a gourd or hollow earthen pot, while the net is let down beneath them; as a hilsa fish ascends up the muddy and rapid stream, it strikes against the dependent net, which is made to contract like a purse by means of a string that the fisherman holds in his hand.—Day.

Migration of Races.—Besides the instances of

the Samaritans and Jews transplanted under the Assyrians and Babylonians, history shows the deportation of whole tribes, expressly termed *αναπαρτοί* by Herodotus. The Pæonians were removed to Phrygia, the Barcæans from Africa to Bactria, the Milesians to Ampe near the Tigris, Egyptians to Susa, Eretrians from Eubœa to Ardericca and to Gordeyn, and Antiochians to Mahuza.

Pastoral nomade tribes compose the great bulk of the inhabitants of Turkish Arabia, of Persia, Baluchistan, and they migrate twice a year to their summer and winter pastures.

Muhammad Taghalaq during his reign (A.D. 1325 to 1351) removed the whole of the inhabitants of Dehli to Deogiri, to which he gave the name it still retains of Dowlatabad. After this, the people were twice permitted to return to Dehli, and twice compelled, on pain of death, to leave it. These movements were attended with ruin and distress to thousands, but one of them in particular was made during a famine, and caused a prodigious loss of life.

When Ahmad, the grandson of the apostate Jaka, better known in history under his Muhammadan name of Wujeh-ul-Mulk, determined to immortalize himself by a new capital, the site he chose was the residence of a Bhil community, whose marauding exploits were the terror of the country. In order to commemorate its extirpation, he disregarded its local disadvantages, and the city rose upon an uninteresting, unhealthy, low flat, on the banks of the Sabarmati. Not content with transporting the materials of Chandravati, he resolved that its soul as well as body should migrate, that the population should follow the spoils of the temples and the dwellings. Another general migration was once attempted by Mahmud, the Ghilji, who resolved that Dehli should take root on the Vindya Hills, but Mandoo and Ahmadabad shared the like fate.

Bokhara has a considerable number of Persians, and Persian captives were formerly brought to it in small parties. But the majority of this race were transplanted from Merv in the reign of Amir Said, when that city fell under his sway. With a view of weakening it, he ordered 40,000 families to be transported from Merv to the neighbourhood of Samarcand. They are easily distinguished by their regular features and their bushy black hair.

When Nadir Shah overran Herat and Kandahar, he is said to have deported 18,000 Ghilzai with their families to Teheran, and to have distributed the lands of Kandahar amongst his Persian followers.

Shah Abbas established in Andkhui the Persian tribe of Afshar, who form three-fourths of the population.

After the British mission had left Herat, the vizir Yar Muhammad pressed Ibrahim Khan of Gour, who had 7000 families of Taemuni under his rule, and, after having completely devastated the country which they occupied, Yar Muhammad removed them to Herat, where he established some in the city and the remainder in the suburbs. Subsequently to this, in the beginning of 1846, when Yar Muhammad marched with his army in the direction of the Murghab, on the banks of which river some Hazara Zeidnat were encamped, they decamped into the Persian territory, and

Asaf-ud-Dowla gave them the village of Karez on the frontier of Herat. After the removal of Asaf-ud-Dowla, however, at the close of 1846, Yar Muhammad marched against the small Uzbek khanates in the north of Khorasan, and attacked and defeated the Hazara chief Kariu Dad Khan, in the open country of Killah-nun. Yar Muhammad encamped upon the field of battle, and in the space of eight days collected 10,000 families of the Hazara Zeidnat, whom he removed from their native soil to that part of the district of Herat reaching from Obek to Goian, where he settled them on the banks of the Hari-Rud. By these forced migrations of the Tacmuni and Hazara, the Herat principality became more populous than it had been previously to the siege of Herat in 1838, and Yar Muhammad obtained the further advantage of keeping under his eye the most turbulent inhabitants of his dominions. He made excellent soldiers of these Mimak, and by their amalgamation with the Afghans it became almost impossible for the former to betray him.

Baron de Bode met an Ilyiat tribe belonging to a Lur stem, which had been transplanted into Fars from Luristan Kuchuk by Aga Muhammad Khan, uncle of Fat'h Ali Khan. After his death many returned to their prior encampments in the Zagros chain.

A memorable instance of voluntary migration occurred at the close of the 18th century, when 100,000 families of a Kalnuk tribe left the Black Sea, and, forcing their way through all opposition to the Dasht-i-Kipchak, north of the Jaxartes (Syr Darya), at length reached the original seat of their ancestors at Yarkand and Ecla. They advanced with their herds and flocks, occupying in the breadth of the advancing column a distance of no less than three days' journey.

About the year 1880, the Government of Russia resolved to transfer 25,000 families of Cossacks to the Amur territory, in the district lying between Vladivostock and the Chinese frontier, to check the colonizing efforts of the Chinese. But the curious spectacle has been witnessed of Chinese immigrants appearing in such numbers as often to defeat the Cossacks, to march into Russian territory, and settle down upon it, whether Russia liked it or not. A large proportion of the population of the Amur is composed of Chinese.

About the year 1860, the exodus from the independent Shan States to British Burma of a large body of Shans was brought to public notice. Quarrelling among themselves, and oppressed by the Burmese, they fled for protection and peace to British territories. Several thousands formed a settlement a few miles from Tounghoo, where they built themselves houses and commenced agriculture. They were mostly all of the Saga tribe, the Tsau-bwa of whom, or chieftain, Kwoon Nay, arrived in Rangoon in the train of the Deputy-Commissioner. Some of the very imperfectly described tribes on the eastern side of the Irawadi, to the north of the Karen-ni, viz. the Za-baing, Ka-Khyen, etc., may belong to the older immigration; but the Mon is the only remnant within the ancient Karen provinces.

In the winter of 1863-64, when the Circassians, finally overcome, resolved to quit their country, they moved in great bodies into the Turkish dominions, and it was supposed that above 300,000 would so arrive.

Perhaps all known instances of migration in ancient or modern times, voluntary or otherwise, have been thrown into the shade by the voluntary departures from Ireland to America, from among the races, largely Celtic, occupying that country.

MIHRAB. ARAB. The raised steps in a mosque from which the sermon is spoken.

MIHTAR. HIND. A sweeper.

MIH-TSZE, a Chinese philosopher who lived in the interval between Confucius and Mencius, and wrote on ethics. Scun-tze and Han-yii also wrote on ethics. Scun-tze held that the nature of man is bad, but Mencius held, jin-che-choosing-pun-shen, that man has originally a good moral nature.—*Edkins*.

MIKADO, a title of the emperor of Japan. The first historic emperor, Jimmu, succeeded to the throne of Japan about B.C. 660. His father was reputed to be a god. Hence his descendants the Mikados trace their descent from the gods, and have a sanctity attached to them. Books describe the Mikado as the sacred, and the Tycoon as the secular king. Such was indeed the result of what was really a usurpation, the Tycoon being nominally only the Mikado's chief executive officer. During a period of 1000 years, successive Mikados were reduced to a state of insignificance, while the history of the country is made up of bloody contests of powerful houses for the office of Thogun or commander-in-chief, afterwards styled Taikun or Tycoon. After the ascent of the Tokugawa dynasty to power in the beginning of the 17th century, there was not a battle on Japanese soil for 250 years. The intervention of the European powers in the affairs of Japan led to the reigning Mikado (instigated by the enemies of the predominant Thogun dynasty) denouncing the concessions made to the foreigner. Internecine troubles further weakened the power of the Thogunate, until Kieki, who succeeded to that office in 1866, resigned, and restored the government into the hands of the Mikado. He repented of his decision, and marched to remove from the emperor his bad counsellors; but Keiki was overthrown, and finally, in 1868, he submitted to the imperial power. Since that time the Mikado's Government has been re-establishing itself on a European basis. A cabinet of ministers formed upon European models, the abolition of torture, the reform of the coinage, the introduction of railways, telegraphs, the postal system, and of Government schools, both male and female, are among the most remarkable innovations adopted by this, formerly most conservative, now most receptive, nation.

MIKIR, a hill race in the Nowgong district of Assam, at the foot of the Naga Hills. Their clans extend across the Naga Hills from Nowgong into Cachar. According to their own legend, they were driven by the Cachari from what is called Tolaram or Senapatis country, between Nowgong and Cachar, and sought refuge in Jaintia; but, not being satisfied with their reception, they placed themselves under the rajahs of Assam, and have ever since peaceably occupied the hill country in which they are now settled. The houses vary in size according to the number of families residing under one roof. Some are 30, some 40 feet long, and 20 feet wide, with the grass roof brought down almost to the platform.

The whole building consists of one large room; they keep their grain in baskets in the room, and up to 30 families of men, women, and children all lie down together on their respective mats in their allotted places. Unlike most hill tribes, the Mikir seem devoid of anything approaching to a martial spirit. They are a quiet, industrious race of cultivators, and the only weapons used by them are the spear and dao hand-bill for cutting down jungle. The Mikir take up fresh land every two or three years, and remove their dwellings to different parts of the hills, cultivating in the jhum or kumari manner.

They are very like the Khasiya race in countenance, but inferior to them in physique. They will eat of almost any animal food except the cow, which they affect to reverence; they have a dislike to milk. Marriages are not contracted till the parties are adult. There is no ceremony, but a feast is given in honour of the event; also when a child is born. Polygamy is discountenanced, and widows are allowed to re-marry. They worship a being whom they call Hemptim.—*Butler; Latham; Dalton.*

MIL, a sharp lancet-shaped surgical instrument, which is used for blinding a person; it is run red-hot into the eyes. The small lance used by orificals for dyeing their eyelashes with kohl (the dust of black ironstone) is also called mil.—*Vanbery, Bokhara, p. 233.*

MILCH BUFFALOES are fed in the Panjab with mala patra, the dried and bruised leaves of the wild ber, which much increases the quantity of ghi; green wheat and mustard and maize, green with the ears on, and joar, also increase the quantity of milk. Cows that have lately calved, and whose milk is deficient, get milk mixed with gur (molasses); and also wheat and barley made by boiling into a kind of caudle, called kunji.—*Powell's Panj. p. 151.*

MILDEW, *Puccinia graminis*, a fungus attacking corn in Europe, the spores of which appear to enter the grass, not by the roots, but by the stomata.—*Hassal.*

MILIUSA VELUTINA. *Roxb.*

Uvaria velutina, *Dunal.* | U. villosa, *Roxb.*

Tha-boo-kyee, . . . BURM. | Pedda chikla dudagu, *TEL.*

This tree grows in the Godavery forests, on the Circar mountains, in Bengal and Behar, at the foot of the Himalayas, and in Burma. It yields a strong yellow wood, which is said not to warp; unseasoned, it weighs 62 to 65 lbs. the cubic foot, and 50 lbs. when seasoned; sp. gr. .800. In the Godavery districts it is used for house-building, for poles of carts, harrows, yokes, spear-shafts, and oars. Other known species are *M. Indica*, *macrocarpa*, *Nilagirica*, *Roxburghiana*, and *scloerocarpa*.—*Beddome, Fl. Sylv.*

MILK. ARAB. Possession, property. Mālik, owner, king; Malikāh, queen; Mamlūk, possessed.

MILK.

Halib, ARAB., HEB.	Musu, MALEAL.
Niu-ju, Niu-nai, . . CHIN.	Shir, PEES.
Lait, FR.	Leite, PORT.
Milch, GER.	Moloko, RUS.
Dud'h, HIND.	Ellakerrie, SINGH.
Latté, IT.	Leche, SP.
Lac, LAT.	Mjolk, SW.
Susu, Ayar susu, MALAY.	Pal, Palu, . . . TAM., TEL.

Except among the Hindus, the fresh milk of cows, goats, etc., is little used as an article of diet in Southern and Eastern Asia. It may even be

said that aversion to fresh milk as an article of food obtains among nearly all the Chinese, Indo-Chinese, and Malay races, including specifically the Khasiya, Mikir, etc., of the eastern frontier of British India, the Garo and Naga, the Burmese, the Sumatran races, the Javanese, and Chinese. The Brahui and Baluch nomades in the Peshin valley, though they will give milk in exchange for other commodities, yet they consider it a disgrace to make money by it. With the Arabs the term labban (milk-seller) is an opprobrium and a disgrace. They, too, will give or exchange, but not sell milk. Possibly the origin of the sentiment may be the recognising of a traveller's guest-right to call for milk gratis. No one will sell milk even at Mecca, except Egyptians, a people supposed to be utterly without honour. Camel's milk is consumed by millions in Asia to this day, as it has been from time immemorial,—milk and its products forming, indeed, the main means of subsistence of various tribes. The Jews probably used it from their earliest times, as 30 milch camels were amongst the cattle Jacob presented to his brother Esau (Genesis xxxii. 15). Milk is not used fresh by the Chinese of Canton, but is curdled and eaten at night with sugar and vinegar. In the northern parts of China, and especially in Mongolia, milch cows are in great numbers, and milk is used there fresh, also made into butter and cheese. Milk of mares is largely used by the Mongol. They extract from it a spirituous liquor, which they call koumiss. Mare's milk used by the Tartars for making koumiss has 17 per cent. of solid matter, and 8 per cent. of sugar of milk, which renders it very liable to undergo alcoholic fermentation. It was in use in China during the Han dynasty. The Tartars make other drinks from whey and butter-milk. Mare's milk and cow's milk are used by the Kalmuk Tartars. They boil it on being drawn, and let it sour, and make it undergo various fermentations, and use it largely in summer for inebriation. All their preparations of milk are called Tchigan. The drinks prepared from pure milk of mares (the koumiss of the Tartars) are named Gunna Tchigan or Horse Tchigan; those in which mare's and cow's milk enter are called Besiek; some cow's milk is named Airek, and all kinds of fresh milk Ussoun. The milk intended for distillation is only allowed to remain 24 hours in summer in the skin bottles to sour, but in the cold weather of winter it is left for 2 or 3 days. The spirit is several times distilled; it is drunk warm, but before drinking, libations are poured out to the spirit of the air.

Milk of the domesticated buffalo is richer than that of the cow, and is supposed to yield more butter. In British India a mixture of buffalo's and cow's milk is often used in making butter. The fluid refuse of arrack distilleries is largely drunk by horned cattle, and is supposed to increase their milk. In Tibet, Mongolia, and parts of the Chinese empire, the zebu (*Bos Indicus*) and the yak (*Bos grunniens*) supply milk. The Akit, used by the Arabs as a refreshing drink, is known by the name of Mazir, as well as Iqt (a corruption of Akit). When very sour it is called Saribah, and when dried without boiling, Jamidah. The Arabs make it by evaporating the serous part of the milk; the remainder is then formed into cakes or lumps with the hands, and spread upon hair-

cloth to dry. They eat it with clarified butter, and drink it dissolved in water. It is considered by the Arab a cooling and refreshing beverage, but boasts few attractions to the stranger. The Baluchi and wild Sindian tribes call this preparation of milk Krut or Kurut, and make it in the same way as the Bedouins. It is perhaps the source of the English word curds. The Negroes of Abcokuta, on the W. coast of Africa, abstain from it, and the Portuguese on both coasts of Africa avoid it. Milk is frequently mentioned in Scripture. Milk of goats, Proverbs xxvii. 27; of cows, Deuteronomy xxxii. 14, 1 Samuel vi. 7; milk clotted, Genesis xviii. 8. The following analyses of several kinds of milk is by MM. O. Henry and Chevallier, in 100 parts:—

Constituents.	Cow.	Ass.	WOMAIL.	Goat.	Ewe.
Caseum, . . .	4.41	1.82	1.52	4.02	4.50
Butter, . . .	3.13	0.11	3.52	3.32	4.20
Sugar of milk, . .	4.77	6.08	6.50	5.28	6.00
Various salts, . .	0.60	0.34	0.45	0.58	0.68
Water, . . .	87.02	91.55	87.98	86.80	85.62
Solid matter, . .	12.98	8.34	13.00	13.20	14.38

—O'Sh.; Moor; Yule's Mission; Burton's Mecca, i. p. 362; Wall. i. p. 42; Gray; Jam. Ed. J., 1830, p. 360.

MILK-BUSH, milk-hedge, Seir, Teg, MAHR., is the *Euphorbia tirucalli*, Linn.

MILK OF PALM NUTS is a popular term for the albumen of the seed when in a liquid state; and which, when the fruit is quite ripe, appears as a solid white or yellowish mass, and is then termed the kernel. This albuminous fluid or water, when the nut is taken from the tree early in the morning, and whilst the dew is still upon it, is a cool and delicious draught. It is, however, very seldom used in this fluid condition. —Seeman. See Copra.

MILK TREES, *Arbol de leche*, *Palo de vaca*, *Arbre de la vache*. Milk-yielding plants occur chiefly amongst the Euphorbiaceæ, Urticaceæ, and Apocynæ, but nearly all their milky secretions contain acrid and deleterious principles. The genera *Euphorbia* and *Asclepias*, however, contain species said to yield a mild and innocuous milky juice. Amongst these are the *Euphorbia balsamica* of the Canaries. In Ceylon is found the *Gymnema lactifera*.

The *Tabayla dolce* or *Euphorbia balsamifera* of South America should be introduced into India. It grows chiefly in the valley of Caucaqua in the neighbourhood of Valencia. It was seen by Humboldt and Bonpland on the 1st March 1800, during their expedition to the valley of Aragua, and these authors describe the milk as used freely by the Negroes. On making an incision into the bark of the *Palo de vaca*, there issues a glutinous and somewhat thick milk, free from all acridness, and possessing a balsamic odour. The travellers partook of it freely at bed-time, and found no ill effects from it in the morning, and they were assured that the Negro slaves and the freemen used it abundantly, and fattened on it.

Caoutchouc is the dried juice of several plants,—the *Hevea Guyanensis*, *Vahea gummiifera* of Madagascar, *Siphonia cahuchu*, *Siphonia elastica*, the *Haucornia speciosa* of Brazil, the *Jatropha elastica*, the *Urceola elastica* of Sumatra, the *Willughbeia edulis* of the East Indies. In A.D. 1736, La

Condamine directed attention to the caoutchouc from the *Siphonia elastica*. Freneau discovered the *Hevea* at Cayenne, and mentioned that longitudinal or oblique incisions were made through the bark, and the fluid, white-coloured sap directed by an inserted leaf to an earthen pot below.—Marion, pp. 49, 138.

MILKY WAY of the heavens is the *Suraj-ul-asma* of the Arabs.

MILL, JAMES, a political economist and historian. In 1818, he published a History of British India, in 6 vols. 8vo, which led to his appointment in the correspondence department of the East India House of the revenue branch. He died in 1836. His work was continued by Professor Horace Hayman Wilson, in vols. 7 and 8, London 1858.

MILL. The cereal grains, millets, and pulses are usually ground by hand-mills and by women; sometimes a single woman, sometimes two sit opposite. This has been the eastern custom from ancient times. Isaiah xlvii. 2, Matthew xxiv. 41, make mention of 'two women grinding at the mill.' The Hindus grind their flour by turning one stone round upon another with the hand. It is not uncommon to see two women engaged in this work.

A form of mill frequently to be seen is that of the pestle and mortar, the latter sometimes of wood, sometimes of stone, and used for expressing oil from oil-seeds. Wooden mills for pressing sugar-cane, consisting of wooden rollers, are generally used in the Bardwan district, and also in the Hoogly, Kishengarh, and Baraset districts, and around Calcutta. In Furriddpur a kind of mill is used, made with rollers on the endless screw principle, which is very effective. A mill on the same principle is used in Cuttack, and also in Ganjam and various other parts of the Madras Presidency. In Ganjam the rollers are made of wood of the toughest and hardest kind obtainable, and which will not impart any bad taste to the juice. The wood of *Albizia odoratissima* is preferred, being remarkably hard, tough, and durable. The wood of the *Schleichera trijuga* is largely used.

MILLANOWE, a race on the N.E. of the Sarawak territory. They are of a fair complexion, and are occupied with agriculture, trade, and peaceful pursuits.

MILLEPORA, a genus of the coral reef building polypifer. The coral they construct is in thick vertical plates, intersecting each other at various angles, and forming an exceedingly strong honeycombed mass, which generally assumes a circular form, the marginal plates alone being alive. Between these plates, and in the protected crevices in the reef, a multitude of branching zoophytes and other productions flourish, but the porites and millepora alone seem able to resist the fury of the breakers on its upper and outer edge; at the depth of a few fathoms, other kinds of stony corals live. The corals of the porites and millepora invariably compose the outer margin. *M. alcornia*, *M. complanata*, *M. corymbosa* are known species; *M. pocillifera* at the Mauritius. See Coral; Madrepor.

MILLER'S TRUST, a Persian proverb, originating in the treacherous slaughter of Yezdejird, in A.D. 651, by a miller to whom his secret had been confided.

MILLET.

<i>Dukhn</i> ,	ARAB.	<i>Navaria</i> ,	MALEAL.
<i>Navonay</i> ,	CAN.	<i>Arzun</i> ,	PERS.
<i>Liang, Kau-liang</i> ,	CHIN.	<i>Milho, Mindoo</i> ,	PORT.
<i>Cay khe</i> ,	COCH.-CHIN.	<i>Prossso</i> ,	RUS.
<i>Hirac</i> ,	DAN.	<i>Kangu, Priyangu</i> ,	SANSK.
<i>Ral, Kala</i> ,	DUKH.	<i>Tana-hal</i> ,	SINGH.
<i>Gierst</i> ,	DUT.	<i>Aljo</i> ,	SP.
<i>Kang</i> ,	GUJ.	<i>Tenny</i> ,	TAM.
<i>Miglio</i> ,	IT.	<i>Koraloo</i> ,	TEL.

The millets belong to the natural order *Panicaceæ*. Various kinds are met with in the hottest parts of Africa, in the south of Europe, in Asia Minor, and in the East Indies. In India they hold a rank second to rice alone, and those chiefly cultivated for food are as follows:—

Eleusine coracana, *Gartner*, Marwa.
E. stricta, *Rarb.*, Ragi.
Opismenus frumentaceus, *Rarb.*, Dainra Shama.
Panicum Italicum, *L.*, Kangoo.
P. miliaceum, little millet, Sawee Cheena.
Paspalum stoloniferum, *Linn.*, Kodu.
Penicillaria spicata, *Willd.*, Bajra.
Poa Abyssinica, *Ait.*, teff bread plant.
Setaria Germanica, *Beaur.*, German millet.
Sorghum bicolor, *Willd.*, Kala Deb-dhan.
S. cernuum, *Willd.*.
S. saccharatum, *Pers.*, Sada Deb-dhan.
S. vulgare, *Pers.*, Jowari, great millet.

Millets are known as petit mais, or tropical crops. In India, they form a great part of the food of the labouring people everywhere but on sea-board, in the valleys, and on the banks of rivers, perhaps as much as rice, and more than wheat, and in Egypt, perhaps, surpass all other crops in importance. In Western Africa they are the staff of life. In China, the *Setaria Italica*, the *S. glauca*, the *Panicum miliaceum*, *Sorghum vulgare*, and *S. saccharatum* are all cultivated. Turkey abounds in small grains. *Panicum miliaceum*, *P. frumentaceum*, and *P. glaucum* are all grown in the East Indies and China. The *Setaria Germanica*, German millet plants, are readily increased by division of the roots or by seed, and will grow in any common soil. The West Indian species are *Panicum fasciculatum* and *P. oryzoides*.

In Southern India, there are three kinds of sorghum, white, green, and red; their straw is of great bulk and goodness, and furnishes good provender for cattle, being preferable to that of rice. It is, however, given dried, as the green plant is injurious. Among culmiferous plants and legumes used in the east are the *Panicum Italicum*, *Eleusine coracana* (the meal of which is baked and eaten in India and Ceylon under the name of Corakan flour), and *Paspalum* of several varieties. *Sorghum vulgare*, a principal grain of Southern Asia, is cultivated throughout Western Hindustan, and in most parts of the Western Dekhan, between the Nerbadda and the Godavary.

In the United States, *Setaria Germanica* is grown for hay, being found a good substitute for clover and the ordinary grasses. The plant flourishes well on rather thin soils, and it grows so fast that when it is up and well set it is seldom much affected by drought. Half a bushel or more of seed to the acre is the usual quantity sown, broadcast and harrowed in. The ordinary yield of crops may be put at from a ton to a ton and a half of hay to the acre. It should be cut as soon as it is out of blossom; if it stand later, the stems are liable to become too hard to make good hay. It grows ordinarily to the height of

about 3 feet, with compact heads from 6 to 9 inches in length, bearing yellow seed. The sub-varieties of this are the white and purple-seeded. The Italian millet, *Panicum Italicum*, is larger than German millet, reaching the height of 4 feet in tolerable soil, and its leaves are correspondingly larger and thicker. The heads are sometimes a foot or more in length, and are less compact than the German, being composed of several spikes slightly branching from the main stem.

Sorghum vulgare, great Indian millet, is the *Andropogon sorghum* of Roxburgh. It is grown in most tropical countries. In the West Indies it is chiefly raised for feeding poultry, and is called Guinea corn. In Egypt it is known as Dharra, in Hindustan and Bengal as Jowari, in the Tamil country as Cholum. It is harvested in December and January, requires a light soil, and is usually grown after *Eleusine coracana*. The red kind ripens a month earlier than the rest, or about four months from the time of sowing, at the close of May or early in June. A gallon and a third of seed is sown per acre, and the produce averages 16 bushels. For the great bulk and goodness of its straw, which grows usually to the height of 8 or 10 feet, it is sometimes sown for fodder in the beginning of April, and is ready to cut in July. This grain is frequently fermented to form the basis, in combination with gur or half-made sugar, of arrack, and in the hills is fermented into a kind of beer or sweet wort, and drank warm.

Penicillaria spicata is cultivated throughout India. From one to four seers are sown on a bigha of land, and the yield is about four maunds per acre. It is sown after the heavy rains commence, and the plough serves to cover the seed. The crop is ripe in three months, and the ears only are taken off at first. Afterwards the straw is cut down close to the surface of the soil, to be used for thatching, for it is not much in request as fodder. Being a grain of small price, it is a common food of the poorer class of natives, and really yields a sweet palatable flour. It is also excellent as a fattening grain for poultry.

Poa Abyssinica is one of the bread corns of Abyssinia. The bread made from it is called teff, and is the ordinary food of the country, that made from wheat being only used by the richer classes. The way of manufacturing it is by allowing the dough to become sour, when, generating carbonic acid gas, this serves instead of yeast. It is then baked in circular cakes, which are white, spongy, and of a hot acid taste, but easy of digestion. This bread, carefully toasted, and left in water for three or four days, furnishes the boza or common beer of the country, similar to the quas of Russia.

MILLINGTONIA, a genus of plants of the sub-order Millingtoniæ. Drs. Roxburgh, Wallich, Royle, and Wight have described several species. *M. pinnata*, *Roxb.*, a tree of Sylhet, *M. pungens*, *Wall.*, a tree of the Neilgherries, Khasya, and Nepal, and *M. simplicifolia*, *Roxb.*, are the generally recognised species.

M. simplicifolia grows in Madura, Nepal, the Khasya Hills, and is found in the forests of the Pegu valley, but scarce. Its properties as a timber are valuable from its weight and strength. Wood white colour, and adapted for every purpose of house-building.—*Roxb.*; *Royle*; *Dr. McClelland*.

MILUM, a glacier in the W. Himalaya, 8 to 10 miles in length, and 3000 feet broad.

MILVUS, a genus of birds of the sub-family *Milvinae* or kites. The common European kite (*Milvus regalis*) was numerous in England in the days of the Tudors, and was protected by law, as it formerly performed the duties of scavenger in London and other cities, as indeed *M. atu* does now in Constantinople and in Egypt. *M. melanotis* is of China, and *M. affinis* and *M. parasiticus* are of Australia and Africa respectively.

Milvus govinda, *Sykes*.

M. cheele, *Jerdon*.

M. indicus, *Hodgs*.

Hal. lineatus, *Gray*.

Pariah kite, . . .	ENG.	Paria prandu, . . .	TAM.
Chil,	HIND.	Malla gedda, . . .	TEL.

This is the scavenger kite, and is seen throughout India up to 8000 feet. They pick up garbage of all kinds, along with crows and dogs. When gorged, this bird delights to sit on the entablature of buildings, exposing its back to the hottest rays of the sun, placing its breast against the wall, and stretching out its wings exactly as the Egyptian hawk is represented on monuments.—*Jerdon; Tennent's Ceylon*.

MIMANSA, a school of philosophy which investigates the doctrine and practices of the Vedas. The Hindus have six different schools or systems of metaphysical philosophy. They are called the Purva Mimansa, Uttara Mimansa or Vedanta, the Sankhya, the Patanjala, the Nyayika, and the Vaisheshika. These, although some of them offer irreconcilable contradictions to essential doctrines of their religious belief, are recognised by the Brahmins as orthodox, and attributed to authors of saintly reputation; while the Charvaka, Buddhist, and Jain schools, although in some respects not more at variance with received opinions than the preceding, are stigmatized with the reproach of infidelity and atheism. The cause of this distinction is that the orthodox schools of philosophy do not disparage the authority of the Vedas, and they do not dissuade the celebration of the acts of formal devotion which the Vedas or Puranas enjoin, although they argue their utter inefficacy as means of final and permanent felicity. They recommend their performance, however, as conducive to that frame of mind in which abstract contemplation may be safely substituted for devotional rites, and even admit of external observances after the mind is in pursuit of true knowledge, so long as such ceremonies are practised from no interested motive, so long as they are observed because they are enjoined, and not because any benefit is either to be expected or desired from their practice. Again, the writings of the orthodox philosophers do not meddle with existing institutions, and least of all do they urge or insinuate any consideration to detract from the veneration, or trespass upon the privileges, of the Brahmins. So long as these precautions were observed, the Brahmins did not, nor would they now, object to any form of doctrine having in view the establishment of merely abstract propositions. The case was very different with the heterodox schools. They went from abstractions to things. The Charvaka condemned all ceremonial rites, ridiculed even the *Sradha*, and called the authors of the Vedas fools, knaves, and buffoons. The Buddhists and Jains denied the inspiration of the

Vedas and the sanctity of the Brahmanical character, abrogated the distinction of caste, invented a set of deities for themselves, whom they placed above those of the Hindu pantheon, and organized a regular hierarchy, a priesthood, and a pontiff,—an institution still subsisting in the trans-Indian countries, of which the Grand Lama of Tibet is the head; and Burma and Siam have their respective pontiffs, presiding over the Buddhist hierarchy. It is a remarkable historical fact that this organization was found too feeble to oppose, in India, the apparently loose and incoherent, the undisciplined, the anarchical authority of the Brahmins. It had, however, the effect of exciting their apprehensions and their hatred to such an extent that it became proverbial with them to say, 'If your only alternative be to encounter a heretic or a tiger, throw yourself before the latter; better be devoured by the animal than contaminated by the man.' There may be a few of the Charvaka sect in India, but their opinions are unavowed. The Jains have numbers and influence in the west of India, but Buddhists are little heard of in India, though numerous in Ceylon, Tibet, Burma, Siam, Cambodia, Cochin-China, China, and Japan.

Besides the above acknowledged schools or systems of philosophy, there is the Pauranik. It is not considered one of the number of regular schools, and does not claim the character of a system, but it presents a peculiar scheme of doctrine on metaphysical subjects, and exercises more influence over popular opinion than any of the rest. It may also be termed the Eclectic school, as it has evidently derived its principles from different systems, and formed them into a miscellaneous combination of its own contrivance. It is not put forward as a new scheme, but is subsidiary to the popularization of particular objects of worship for which the Puranas seem to have been composed. The Vedas are authority for the existence of a Divine Being, supreme over the universe, and existing before all worlds. 'In the beginning,' it is said, 'this all (this universe) was in darkness, He (the supreme) was alone without a second. He reflected, I am one, I will become many.' Will was conceived in divine mind, and creation ensued. This being the doctrine of the Vedas, is also that of the Vedantas, the purport of which school is declared to be the same as that of the Vedas, their end (*anta*) or aim. The Vedanta is called also the Uttara Mimansa,—subsequent or supplementary investigation. There is also, however, a Purva Mimansa, or prior school of investigation, the object of which is to teach the art of reasoning, with the express purpose of aiding the interpretation of the Vedas not only in the speculative but the practical portion. As far as concerns the former, it of course adopts the same monotheistic principles. The Patanjala school teaches also the being of a God, the Nyayika and Vaisheshika teach the existence of one Supreme Soul,—the seat of knowledge, and the maker of all things, and the Pauranik or Eclectic school maintain the same doctrine. The Sankhya denies the existence of a Supreme Being, although it recognises a twofold distribution of the universe as matter and spirit. Of these six ancient schools of philosophy recognised among the Hindus, some are avowedly inconsistent with the religious doctrines of the

Brahmans, and others, though deemed perfectly orthodox, advance opinions not stated in the Vedas. The six schools were enumerated in the following order by Mr. Colebrooke:—

The prior Mimansa, founded by Jaimini.
The latter Mimansa or Vedanta, attributed to Vyasa.
The Nyaya, or logical school of Gautama.
The Atomic school of Kanada.
The Atheistical school of Kapila.
The Theistical school of Patanjali.

The two last schools agree in many points, and are included in the common name of Sankhya. Mimansa-darsana and Mimansa-vartikka are works on the Mimansa philosophy, the latter by Kumarila Bhatta.—*Wilson's Opinions of the Hindus*, p. 44; *Elphinstone*.

MIMOSA, a genus of plants of the natural order Fabaceae. The leaves of some of the species are remarkable for being sensitive to the touch. The pink and yellow flowers of one of the small shrubby kinds are particularly beautiful in the rains; they readily grow from seed in any soil. Many plants formerly placed by botanists in this genus have been referred to other genera, chiefly to the acacia, albizzia, caillea, dichrostachys, entada, inga, and vachellia.

MIMOSA PUDICA. *Linn.* Sensitive plant.

Najuk, BENG. Tota vadi, TAM.
Hte-ka-yung, BURM. Attapatti, TEL.
Lajuk, Lajwanti, HIND. Pedda nidra kanti,

This plant has small purple or pale pink flowers, and its leaves fall on the slightest touch. It is common in gardens, and grows readily from seed.

MIMOSA RUBICAILIS. *Lam.*

Arlu, Kikri of BEAS. Didriar of RAVI.
Koohee-kanta, BENG. Alla, SUTLEJ.
Ral, Riail, PANJAB. Undra, Ventra, TEL.
Deo-khadir, "

A very prickly shrub (*M. octandra*, *Roxb.*), with small purple flowers, gradually becoming whitish. It grows over India, and is a valuable hedge plant.

MIMOSA SENSITIVA. *Linn.* P'a-yang-hwa, CHIN. A native of Brazil, has small purple flowers. The leaflets are sensitive to touch. It will grow in almost any situation and soil, raised easily from seeds. It is cultivated by the Burmese, and is quite naturalized.—*Mason*; *Roxb.*

MIMULUS CARDINALIS, Monkey flower. Thubbæ, BURM. Ornamental plants, well suited for flower borders; the colours are chiefly blue, red, and yellow. It takes its name from Mimeo, an ape, the seed bearing some resemblance to the face of a monkey.—*Riddell*.

MIMUSOPS ELENGI. *Linn.* Bakula tree.

Kya-ya, BURM. Kesura, SANSK.
Mugali mara, CAN. Moone mal-gass, SINGH.
Taindu, DUKH. Maghadam maram, TAM.
Mulsari, Bakula, HIND. Pogada manu, TEL.
Elengi, MALEAL.

This ornamental flowering tree grows in Ceylon, India, Burma, and the Moluccas. It has dark, evergreen, oblong, alternate leaves, and small pale brown or white, sweet-smelling, fragrant flowers, of moderate size, from which an oil is distilled. Its fragrant aromatic flowers are celebrated in the Puranas, and even placed amongst the flowers of the Hindu paradise. Krishna is said to have fascinated the milkmaids of Brindaban, on the banks of the Jumna, by playing on his flute beneath a bakula tree. The wood is strong, very hard and durable for any ordinary

purpose, serviceable for houses, but not used in ships or boats. The berries are eaten sometimes by the poor. The seeds yield an abundance of oil, which is used by painters. Burmese ladies value its small, delicate, sweet-scented blossoms, which they string in chaplets for the head. A cubic foot weighs 61 lbs.

MIMUSOPS INDICA. *A. D. C., W. Ic.*

Paloo-gass, SINGH. Palava maram, TAM.

This valuable tree grows very abundantly in the hot, drier parts of the island of Ceylon. The timber is extremely hard and strong, and very durable. It grows in Tinnevely. It is in large demand by the Madras Ordnance Department for making gun-stocks.

MIMUSOPS LITTORALIS. *Kurz.* A timber tree of the Andamans.

MINA. An Assyrian weight = 7.747 grains. The average man of Baghdad and Shiraz is 14.0, that of Tabreez and Bushire, 6.985.

MINA. HIND. Enamel; rods of coloured glass used in ornamenting glass bracelets. Minakari, the process of enamelling. Vitreous masses of colours for enamels are employed by the minakar, enameller on silver, etc. The colours used are principally green and blue, salts of iron and copper diffused through vitreous matter; a yellowish colour also is produced by litharge. The manufacture consists in taking a silver or metal vase, having the pattern of leaves or flowers worked on it in relief, and filling the hollows with enamel in a melted state. The colours exhibited are blue, green, and red. The art of making this material is known at Lahore, Multan, Jeypore, and other places.

Mina, in Persian means a glass vase, a blue glass; it is also applied to the deep blue sky, and hence to the blue vitreous enamel which is the commoner sort. Mina bazar amongst the Mahratta race is any exhibition. The enamels of Jeypore rank before all others, and three forms of enamelling are followed there. Two of these are comparatively modern. The third (by incrustation) is very ancient. The Japanese practise a fourth form of enamelling. The art is probably Turanian; it is practised everywhere in India. It was, according to the Chinese, introduced into China by the Yueche, and was carried as early, if not earlier, into India. From Assyria it probably passed into Egypt, and thence to Europe.—*Powell's Handbook*.

MINABAN, BURM., the Moulmein lancewood, is useful for handles of tools, but it is not equal to lancewood in elasticity. It is liable to the attacks of insects.

MINAGARA, a historical city on the Indus river, the chief site of the dominions of the Parthian kings of the Panjab. Captain Balfour, I.N., is of opinion that it was situated on the Baggaur branch of the Indus, which flows from the main stream a few miles south of Tatta, and disembogues through the Gharra near Kurachee, and at some remote period had been the main stream of the river, but is now open only during the inundation period. On Sind being conquered by Omar, general of the khalif Al-Mansur, the name of Minagara was changed to Mansura, 'une ville celebre sur le rivage droit du Sind ou Mehran, Ptolemee fait aussi mention de cette ville; mais en la deplacant,' etc. D'Anville places it about 26°, but not so high as Ulug Beg,

whose tables make it 26° 40'. General Cunningham has little doubt that Minagara, handed down to us by the author of the *Periplus*, was the Sami Nagara of the Yadu Jharsa, whose chronicles claim Seistan as their ancient possession, and in all probability was the stronghold (nagara) of Sambus, the opponent of Alexander, and he is inclined to place it on the site of Sehwan. Vincent, in his translation of the *Periplus*, enters fully upon this point, citing Arrian, Ptolemy, Al-Biruni, Edrisi, D'Anville, and De la Rochette. He has a note (26, p. 386, i.) which is conclusive, could he have applied it,—‘Al-Birun (equidistant) between Debeil and Mansura.’ D'Anville also says: ‘De Mansora a la ville nommée Birun, la distance est indiquée de quinze parasanges dans Abulfeda,’ who fixes it, on the authority of Abu-Rehan (surnamed Al-Biruni from his birth-place), at 26° 40'.—*Cunningham, Anc. Geog.* p. 288.

MINAHASSA. Menado and Kama, in the province of Minahassa, lie directly opposite each other on the W. and E. sides of the N.E. peninsula of the island of Celebes, and are open to foreign trade. Menado is the capital of Minahassa, and is situated on a large and beautiful bay on the W. side of the northerly promontory of Celebes, in lat. 1° 30' N., and long. 124° 56' E. The people of Minahassa differ much from all the other people in the Archipelago, with the usual long, straight, jet-black hair of the Malays. They are of a light brown or yellow tint, often approaching the fairness of a European, of a rather short stature, stout, and well made, of an open and pleasing countenance, but disfigured as age advances with projecting cheek-bones. The coast people, where there has been intermixture, are coarse; but in inland villages, where the race is pure, both men and women are remarkably handsome. They are quiet and gentle, submissive to authority, and easily adopt the habits of civilised life. They seem capable of acquiring a considerable amount of intellectual education, and they are clever mechanics.

MINAR. PERS. A minaret or a mosque or other building. Char-minar, a building inside Hyderabad city. Minara, boundary pillars.

MINBASHI. TURK. A commander of 1000 horsemen.

MINBOO, near here, opposite Magway in Burma, are mud volcanoes.

MINCOPI occupy the Andaman Islands, and are perhaps the least civilised race in the world, being nearer to a state of nature than any people we read of. They are in the very lowest and most abject state of human society, without fixed dwellings, unclothed, and unacquainted with the meaneast of the useful arts. They have been isolated from unknown times; and when the British settled on their islands in 1858, they were found in the lowest condition in which human beings can exist. They go quite naked, the women wearing only at times a kind of tassel or fringe round the middle, which is intended merely as ornament, as they do not betray any signs of bashfulness when seen without it. The men are cunning, crafty, and revengeful, and frequently express their aversion to strangers in a loud and threatening tone of voice, exhibiting various signs of defiance, and expressing their contempt by the most indecent gestures. At other times they appeared quiet and docile, with the most insidious

intent. They are small in stature, seldom rising in height over 5 feet. The height of the men was found to average 4 feet 11 inches, and that of the women 4 feet 7½ inches. The minima and maxima observed were, of the men 4 feet 5½ inches and 5 feet 4½ inches, and of the women 4 feet 4 inches and 4 feet 11½ inches, but these maxima were quite exceptional. They are of a squat, thick-set figure, skin intensely black and glossy; that of the men has deep scars on it, produced by cuts of flint or glass chips, this form of tattooing being performed by the women. The head is round, smaller than neighbouring Asiatics, and eyes prominent, even projecting. Depressions exist in the temporal region of the head. The teeth are nearly white, but often so irregular as to seem in double rows. They are muscular, and are deficient in the roundness and fullness which give such symmetry of form to other races. Their aspect uncouth, their limbs are ill-formed and slender, their bellies prominent, and, like the Africans, they have woolly heads, thick lips, and flat noses. They may be called hunters and fishermen, hunting game in their own wilds and jungles, using the bow and arrow, with which they are expert, and employing the bark of a tree for fishing-lines. In disposition they are shy, unsocial, and mischievous. They are skilful in shooting fish, manage their canoes well, and are fond of singing and dancing. They take little pains to cultivate the soil, and are ignorant of the art of working in metals. They make their canoes by hollowing out the trunks of trees by means of fire.

The area of the Andaman Islands is 1746 square miles, that of the Great Coco 11 square miles, the Little Coco 2 square miles, the three main Andaman Islands 1353 square miles, and others smaller 380 square miles.

MINDANAO is in lat. 5° 39' N., long. 125° 18' E. Mindanao, Palawan, and the Sulu group of islets, forming the southern limits of the Philippine Archipelago, contain many nations and tribes speaking many languages. The interior is said to be inhabited by many small tribes of Papuans, but those only who reside near the north-east, where there are several Spanish settlements, are known to Europeans. The chief tribes of the north are called respectively Dumaga, Tagabaloy, Malano, and Manabo, and, in common with the other mountain Papuans of Mindanao, they are comparatively inoffensive.

MINDORO, an island lying immediately adjacent to the S.W. coast of Luzon, being separated only by a narrow strait. The Mindoro Sea is bounded on the S.W. side by the N.E. coast of Borneo. It is much resorted to by British sperm whalers, who obtain entire cargoes there. Mindoro Strait is 27 to 33 miles wide. The sea is so clear and transparent that the spotted corals are plainly visible under 25 fathoms water.

The Negrito race in this island are congregated in a mountainous district called Bengan, where they live on friendly terms with the Mangianes or wild tribes of the brown race, by whom they are surrounded, although very little intercourse subsists between them. The Mangianes are a mild people, little advanced in civilisation.—*Bikmore; Crawford; Earl; Wallace.*

MINDRA, in a Hindu temple, is the cella.

MINERALOGY is a science which deals with

the description and classification of the chemically distinct substances which form the material of the globe. Mineral substances, useful in the arts, and applicable for personal ornament, are very numerous in South-Eastern Asia, and under their respective headings will be found noticed,—agate, alum, amber, amethyst, antimony, arsenic, asbestos, aventurine, barytes, beryl, bismuth, bloodstone, building stones, cairngorm, calcedony, cat's-eye, cinnamon stone, clays, coal, copper ores, coral, cornelian, corundum, diamond, earths, emerald, fire-clay, fuller's earth, galena, garnet, gold, graphite, gypsum, iron, jacinth, jade, kankar, kaolin, kyanite, lapis-lazuli, lead, lime, limestones, lithographic stone, manganese, marbles, meerschaum, mercury, mica, millstones, molybdenum, mother-of-pearl, ochres, onyx, pearls, peat, petroleum, plaster of Paris, platinum, prase, plumbago, pumice, red earth, rock-crystal, ruby, salt, saltpetre, sapphire, selenite, serpentine, silver, slate, soda, spinel, sulphur, talc, tin, topaz, tourmaline, turquoise, zinc, zircon.

Mineralogists arrange these substances according to their chemical composition, as those consisting exclusively of native elements; also the compounds of arsenoid metals, the compounds of metals with halogen elements, compounds of elements with oxygen, and organic compounds.

The result of the study of rocks and of their component minerals has been to show that the great mass of the earth's crust is formed of aggregations of minerals belonging to a very small number of the types that have been determined by the mineralogist. The ores furnish metals essential to the needs and happiness of man. Numerous minerals furnish products important in daily life. Materials for construction and architectural ornamentation, for pigments, mordants, and bleaching processes, the phosphates for manures, the alkalis, and the materials for the manufacturing of acids, are all dependent on the mineral resources of the earth.

Of the above, the coal seams, the salt mines, the ores of iron, tin, galena, gold, antimony, and salt are the most valuable.

Valuable tin ores exist in the Tenasserim Provinces, and still more valuable beds of salt in the Panjab. Coal abounds, and in several parts of British India iron ores occur plentifully, but are worked chiefly by the natives in the rudest and most unthrifty manner. Galena and copper ores occur, but not in large quantities, and gold is found in many places, but has not been to any extent worked with scientific skill. Of the precious stones, rubies, sapphires, emeralds, and others are found in Ceylon, Independent Burma, Siam, and in countries N.W. of the Himalaya. In British India the other stones now procured for jewellery are diamonds, garnets, agates, cornelians, and other forms of quartz. The coarse sapphire of corundum is found in some places associated with jade. Mewar is rich in metals. Mysore has iron ore and corundum in abundance.

Baluchistan is rich in mineral productions; copper, lead, iron, antimony, sulphur, and alum abound in various parts, while common salt is too plentiful to be advantageous to vegetation. On the high road from Kalat to Cutch Gandava is a range of hills from which red salt is extracted. Sulphur and alum are to be had at the same place. Ferrier saw quantities of white and grey

marble in the mountains to the westward of Nooshky, but it does not seem to be at all prized by the Baluch. Marbles abound in S.E. Asia.

Chinese authors assert that there are between four and five hundred mountains in the empire which produce copper, and that there are upwards of three thousand which produce iron. Gold and silver mines abound, but the policy of that Government discourages their being worked. The mines of the province of Kwei-chu supply all the mercury used for the manufacture of vermilion, and there are mines producing lead, tin, and calamine scattered all over the country. Coal was used very early in China as fuel; it is mentioned by Du Halde as black stones dug out of the mountains, which stones burn when kindled, and are used by many persons in preference to wood, of which there is abundance. It is found in the north and in the south, and probably might be had in nearly every province in the empire. At Shanghai it has been used on board Government steamers; in this district it resembles canal coal. It is to be had also at Canton. Le Comte assures us that there is not any country better supplied with coal than China, and he particularizes the provinces of Shan-si, Shen-si, and Chi-li.—*Sirr's China*, i. 424; *M. E. J. R.*

MINERAL SPRINGS exist in many parts of the south and east of Asia. The districts richest in mineral waters appear to be the Tenasserim Provinces; a district around Hazaribagh, stretching in almost every direction for about 130 miles, in many places literally teeming with hot springs; the upper part of the Jalandhar Doab, or rather the hills beyond its northern boundary, the Salt Range, and Northern and Western Sind; next to these is the Konkan, and, though not to be compared with any of the foregoing, the springs in the peninsula of Gujerat. The known springs are found at every elevation from within high-water mark to a height of 12,000 feet.

The most frequent of all appear to be the hot springs without any very strong mineral impregnation, which are so abundant in the Tenasserim Provinces, and in the Hazaribagh districts, in some parts of the Himalaya, in the Konkan, also in Sind, where, as in many other places, an impregnation with carbonate of lime is common. One or two such have been found in Rajputana and the Dekhan.

Sulphurous springs appear to be pretty equally diffused: several in Hazaribagh, some in the Nerbadda, some in the Konkan and Gujerat, some in Sind and the Salt Range, many at the base of the Himalaya, and in the upper part of the Jalandhar Doab. The great majority of them are thermal.

The saline springs are chiefly found in Sind and in the higher portion of the Panjab; they usually contain common salt with some sulphate of soda and small quantities of other salts, when they are not simply brine. Traces of iodine are found near Kangra. Throughout Rajputana and in some parts of the Panjab, the wells are abundantly impregnated with soda. Some of the springs in Kanaon contain mineral impregnations, but scarcely to an extent to be considered saline. Scarcely any strong saline ones are thermal. The few thermal salines are chiefly calcareous, and one or two silicious.

There appears to be a general deficiency of chalybeates, and there is no one district in which

they have been found more frequently than another, unless in the outer ranges of the Himalaya. Wells in the Neilgherries are said often to have a trace of iron. None of the Indian chalybeates are thermal, and none of those known, except that at the beautiful spot Nagconda, appear to be strong ones. Some of the thermal springs, as the Seeta Kund at Monghir, the water of which is highly prized, and often carried on long voyages, are probably slightly carbonated.

Dr. Buist, in Trans. Bombay Geogr. Society, collected a large list of thermal springs. In the great majority of instances they have only been regarded by the natives of the country as emanations of the deity, and as objects of worship. Wherever there is a hot spring, there is pretty sure to be a temple, visited by pilgrims. Many have been used medicinally; and those which appear to be most resorted to for their healing virtues are the springs at Malacca, also at Sona, near Delhi, where considerable buildings have been erected for the convenience of bathers, at Munnikarn, and at the Lukki pass. All of them are thermal, and except Munnikarn are sulphuretted. Natives have undoubtedly faith in them in certain cases, and they might easily at a small expense be made more extensively useful. Mr. Ludlow in 1826 suggested that the wells at Sona should be made use of for European soldiers. Dr. Murray attempted in 1843-44 to employ the sulphuretted and chalybeate springs in the valley below Landour for the benefit of the invalids at that sanatorium, but the situation of the springs, at the bottom of a hot and confined though picturesque valley, was an obstacle to success. The absence, at most seasons of the year, of a bracing climate, at the generality of the thermal springs in India, diminishes the chance of their ever proving of utility to Europeans. Perhaps the climate of Hazaribagh, which is 1500 feet above the level of the sea, alone offers something of an exception to this remark.

The sulphuretted spring at Chaunch is prettily situated, not far from the Pacheco Hills. But there is a much more abundant and hotter one, called Tanloie, on the banks of the Damuda, two or three miles off. Those at Bum Buklesir, about fifteen miles from Mungulpur and Suri, are more powerful and abundant. The hot spring at Lakarakunda is not far off, and there is said to be another near at Kisshun. The elevation of all of them may be about 300 feet above the sea-level.

Bum Buklesir is a pretty spot situated in a well-cultivated country. It is one mile from the large town of Tuntipara, on the banks of a small nullah called the Buklesir. There are five or six hot springs, the whole group called Bum Buklesir. The hot wells that have been surrounded with masonry walls are immediately on the north or right bank of the nullah. There are numerous hot springs in the bed of the nullah, only to be seen in the dry season, giving out sulphuretted hydrogen, with which the air is tainted. Near the hot springs there are several cold ones, all flowing from a tough gneiss rock. The hot and cold springs are only separated by a few feet from each other. The body of water ejected from the hottest well is about 120 cubic feet per minute; it runs from innumerable small orifices in an accumulation of mud, the rock being nowhere visible within the masonry of the tank. In the

hottest water, 162°, a green shining *conferva* thrives. Another spring is 128°, and the coolest 83°. Some 300 or 400 feet from the bank of the river, among the dilapidated temples, there is a large tank which is supplied by two springs, one hot and the other cold; so that at one end the water is warm, at the other cold, and in the centre tepid. The stream of the nullah is about 50 yards across, with a brisk current, and it retains its heat below the springs for a considerable distance; its temperature was 83° in the month of December, when the temperature of the air was in the shade 77°. The sand of the stream some little way from the spring, and at the depth of six inches, is intolerably hot to the hand. Extending for about 200 yards along the right bank of the stream, are 320 small brick and mortar vilars or temples, built by various pilgrims, each containing a lingam emblem of Siva Mahadeo. Numerous attendant Brahmans loiter about the temples, engaged in bathing in the hot stream, or watching the cremation of dead bodies, which is constantly being carried on.

The *Panjab* mineral springs are either in the hills or in submontane districts. There are hot springs, also saline and sulphurous waters, and in limestone districts petrifying streams are not uncommon. Kangra district has four mineral waters,—at Kohalla, Beshisht Kooloo, Munnikarn Kooloo, and the Jowallaji, Amte, and Bassa springs, also at Bohun.

The higher portion of the Jalandhar is a tract abounding in mineral wells of all descriptions, where the icy stream of the Parbati, close to the boiling fountain of Munnikarn, which rises in a jet at an elevation of 5587 feet, could furnish Russian baths, if they were desired, and where the immediate vicinity of a chalybeate is not to be forgotten; where some are reported to contain iodine or bromine, and possess the advantage of an almost European climate. In this district, on the banks of the Beas, is Beshisht, at an elevation of 6681 feet, with an ample thermal sulphuretted source. Gerard says there are a few mineral springs impregnated with salt, iron, and alum, and at the famous wells of Zungsum, at the meeting of the Spiti and Parati rivers, four miles north of Shealkhur, inscriptions in the Tartar language on tablets of stone describe the particular virtues of each spring.

The Jawala Mukhi springs are situated all within a distance of about 30 miles near the base of the hills, on their south-westerly face, looking towards the Beas; all contain chloride of sodium, common salt, and iodide of potassium in considerable quantity. In the Jawala Mukhi valley, naturally formed by an elbow of the Beas near Nalaun, the salt ioduretted springs are placed in the following order:—Koopera, Jawala (two springs), Jawala Mukhi, Nagah, and Kanga Bassa. All the water from these five springs, after having undergone slight concentration by being exposed only for a few hours to the open air, is purchased by the Banyas at one anna per seer, or exchanged for the same value in flour, etc. The livelihood of the natives living in the vicinity of these springs is chiefly earned by this trade. They are convinced, and tell all who question them, that the water contains an efficacious principle which promotes the cure of the goitre. The sulphuretted hydrogen spring at Panera is considered sacred

by the natives, who resort to it for cure in goitre and other diseases. The spring is not a thermal one. A small wayside spring in the hills near Dalhousie has a strong chalybeate taste, and deposits the reddish precipitate indicative of iron. The temperature of Beshisht spring is 102° Fahr., that of the principal spring at Munnikarn 202° Fahr.

Mineral waters occur at Deori and Kosunghat and Surar and Kudra near Jubbulpur; their waters bubble up, and are drank during convalescence to restore the appetite.

The mineral water of Sonachur does not bubble up, but produces a good deal of water; the villagers drink it daily. Comes out of black earth.

Mineral waters occur at Kooslee, Churgaon, Bumhee Boomba, and Nurgur Moha.

Mineral water of a spring walled in at Kudjora in Jessore is a carbonated, calcareous, and magnesian water, with a slight proportion of iron in the state of carbonate, and held in solution in the water.

Mineral water of Sosonea, north of Hazaribagh, is a carbonated and slightly chalybeate spring, with a little muriate and carbonate of soda, also in solution.

Sind abounds in mineral waters.

There is a mineral spring in the Singpho country at Khouang in Assam.

In China the springs of mineral waters are generally thermal or solfataras, yielding sulphurous gases, steam, and warm water, and their warm character gives them their Chinese names Wan-ts'uen, Wan-t'ang, and Fuh-ts'uen. The hot sulphur mines of Tung-t'ang, about 50 miles from Chefoo, resemble those of Atami in Japan, and are useful in skin diseases and the contractions and pains of rheumatism and other diseases. Twenty miles N.N.W. from Macao is the island of Hiang-shan, in which the hot springs Yung-mah occur, with a temperature of 170°. The waters contain salt, sulphate of soda, chloride of calcium, and are useful in skin diseases. In the gypsum districts of the division of Ying-ching, in Hu-peh, are several warm medicinal springs, resorted to by the sick. Large quantities of salt and fibrous gypsum come from these places in Ying-ching. Hwang-shan, a hill to the west of Hwui-chau-fu city, in Ngan-hwui, has cinnabar springs which are reddened at times, and are hot enough to make tea. A clear, hot spring, Yuh-shih-ts'uen, is met with at Li-shan, near Si-ngan-fu (Shen-si). At the Lu-shan, near Kiu-kiang (Kiang-si), are warm springs, once much vaunted for their efficacy in syphilitic, leprosy, and exanthematous disorders. At Li-hien, in Shen-si, is a carbonated spring called Li-ts'uen or Kan-ts'uen, whose sweet waters were deemed to encourage vegetation and to prolong life, and to be cooling, stomachic, and corrective. To the S.E. of the city of Hoh-king-chau, in Li-kiang-fu (Yun-nan), are warm mineral springs, esteemed in the treatment of abdominal tumours. There is the celebrated well of A-yih, at a place about 60 li to the N.E. of the district city of Yang-ku, in Kwan-chau-fu (Shun-tung), anciently called O-yih or A-yih. The well is 70 Chinese feet deep; and its waters have a gelatinous principle like the waters of Bureges in France. The water is evaporated, and produces a gelatine called O'kiau or asses' glue.

In Formosa, at its northern end, 1750 feet

above the sea, are sulphur pits, in the rocky gorge of a mountain, and 85 miles east of Tamsui, and clouds of steam and sulphureous vapour issue from rents in the rocks. There are several hot springs and pools, and a miniature geyser throws intermitting jets of boiling water to a height of 50 or 60 feet. Another solfatara is near the village of Kim-pao-li, some seven or eight miles to the N.W. of Kelung. In Japan similar solfataras occur, in the department of Satsuma, in the island of Kiu-siu. The ground is volcanic and impregnated with sulphur. At the southern end of Satsuma is the burning sulphur island of Ivoo-sima.

1. Sulphuretted Mineral Springs.

Malacca, thermal.

27 miles N. from Hazaribagh, thermal.

Bum Buklesir, thermal, 18 miles W. and S. of Suri, in Birbhum.

Jorya Buri, not far from Chaunch, near meeting of Barakur and Damuda rivers, thermal.

Tantlole, on other side Damuda, thermal.

Tata Pani, Sirguja, Chutia Nagpur, thermal.

N. base of Maha-deo mountains, Nerbadda, thermal.

Well at Gwalior.

At Sona, 30 miles from Dehli, thermal.

At Lousa, in Nurgur.

At Beshisht, in Kullu, thermal.

In the Bukh Ravine, Salt Range, thermal.

At Jubba, in Salt Range, 10 miles E. of Indus.

Chihalee, W. bank of Indus, below Kalibagh.

Mitta, near Esa Khail, W. bank of Indus.

Pir Mangal and Ghazi Pir, in Sind, thermal.

Within high-water mark in Kattyawar.

Temple of Somnath, in Gujerat.

Arowlee, in the Konkan, thermal.

Bhadrachellum, on the Godavery, thermal.

At Chittur, slightly thermal.

2. Saline.

Several springs at Surujkund, near Belcuppee and Burkutta, Grand Trunk Road.

Teva, in Kangra district.

Mukhdur Rashid, in Multan.

Shahpur, near Jhung.

Lohard Khad, on Sutlej, above Rupur.

Universal throughout Salt Range.

Sumundur and Kullur Khar lakes, in Salt Range?

Duzikustuck, Sind, thermal.

Ooch, Sind.

Hyderabad, Dekhan.

Saline and sulphurous springs in Lukki pass.

a. Brine.

Sambhar lake.

Brine springs in Bikanir and Jeysulmir.

Cachar Hills.

b. Alkaline.

Lunar lake, 50 miles from Jaulna.

At Mian Mir, and other places in Panjab.

Kairi soda water wells in Ajmir.

Well at Jawala Mukhi?

c. Aluminous.

Well below at Landour, thermal.

d. Iodine.

Traces of iodine in well at Jawala Mukhi, at Arlun in Kangra and Thunga Bara near Hurripur; though bronchocele is very common in the district, the inhabitants of Jawala are exempt from it.

e. Lime.

Many in Murree Hills, above Rawal Pindi.

Peeth, in Hala mountains, thermal.

Kye, in Kala mountains, thermal.

Near Sunjabundia, Kurnool, thermal, temperature decreasing.

f. Silicious.

Burrare and Bhim Bhand, Kurrukpur Hills, thermal.

3. Chalybeate.

At Dalhousie, Chamba.

Rhotas, near Jhelum.

Bakh Ravine, in Salt Range.
 At Nagoonda, Simla Hills.
 Below Landour.
 On Ranjit river, Darjiling.
 Rungnu river, 4 miles E. by N. of Darjiling.
 Ramandrug Hill, near Bellary?
 Near old town of Attaran, Moulmein, thermal?

4. Thermal Springs with no important ingredients.

Hot springs at Cannea, in Ceylon, temperature variable?
 Hot water fountains at Tavoy and Lunkyen and Sienli,
 and near Kaline Aurig, Martaban.

On Attaran river, Tenasserim.

On the Palouk river and at Pee, between Mergui and
 Tavoy, some sulphuretted.

Springs at Numyan, near Proma.

Between Mecaday and the Arakan Hills.

Seeta Kund, near Chittagong.

Uttir, 30 miles from Purie.

Kaljhurnee, Maharu, Hatballea, Noubhil, between
 Rajamahai and Suri.

Saugur taluk, Nuggur division of Mysore.

At Darjiling, the water of the Minchu spring is a
 carbonated and sulphuretted chalybeate, contain-
 ing its iron in the state in which it is found in the
 Bath waters.

At Kudjora, in Jessore, is a carbonated, calcareous, and
 magnesian water, with a slight proportion of car-
 bonate of iron, held in solution in the water.

At Sosonea, N. of Hazaribagh, is a slightly chalybeate
 spring, with a little muriate and carbonate of soda
 also in solution.

At Mujoolee, 30 miles S.E. of Rhotha.

Laorakunda, 21 miles S.W. of Suri in Birbhum.

At Katkamsandi, old Benares road.

Pinarkoon, Ramgur.

Sitakund, Monghir.

Paharpur, Kurruckpore Hills.

Rajeor and Guriuk, N. by E. of Gya.

On Ranjit river.

Near Bagin river, in Puna district, Bundelkhand.

Alwar country, one 15 miles W. by S. from Alwar, one
 20 miles N.E. of Jeypore.

Mineral springs at Machery?

At Sitabari, in Harowtee, also cold springs.

Jumnotri, Gungootri, Kedarnath, and Badrinath, in
 Garhwal.

Near Nutpa, Bukt, and Jauri, valley of Sutlej.

Opposite Soni, banks of Sutlej.

Hot spring at Silol, Kangra.

Munnikurn, in Kullu, and hot spring farther up the
 Parbati. The water where it issues from its source is
 207° Fahr.,—one of the hottest known springs.
 Geyser, 180°; Surajkund, 190°; the Petersquelle,
 in the Caucasus, 195°; spring on Paluk river, 196°;
 and Guanaxuata, in Mexico, 207°. The boiling
 point of water at the elevation of Munnikurn is
 much below that point. Rice is cooked in the
 spring at Jumnotri 194°, at about 11,000 feet above
 the sea, and in many others of inferior temperature.

Kulat, in Kullu.

Suliman mountains.

Pir Muggen, Alligator Tank, 13 miles from Kurachee.

Juggen and Deyra, N. Sind.

At the base of the Hale mountains, Sind.

Oonec, central range of Kattyawar, variable.

Onopdeen and Sunupdeen, in Satpura Range.

From near Surat to Rajapur many hot springs, at
 Mahar, Ratnagherry, Mat, etc., more than 12 in
 number.

At Byora, Kair, and Urjunna, Dekhan.

5. Petroleum.

Arakan, Paidong, 5 miles from Ramri.

Island of Cheduba.

Assam, at Jeypore and five other places.

Sylhet.

Kafir Kot, Algud ravine, W. bank of Indus.

Jubba, N. side of Salt Range, 10 miles E. of the Indus.

Jawala Mukhi.

Three springs in Dulu, eastward of Gogra.

MINERY, an artificial lake in Ceylon, 20 miles
 in circumference. A charming sylvan spot.

MING, a dynasty of China of A.D. 1370-1650.

Choo Yuen-chang, the first of the dynasty, was
 the son of a labouring man. In his youth he had
 been a servant in a monastery, but joined the
 insurgents who overthrew the Mongols. He
 speedily obtained the leadership of a large army,
 with which he established a new Chinese dynasty,
 over the thirteen provinces of the empire. His
 military genius was as undoubted as his political
 sagacity was great. No sooner had he reached
 the throne than one of his first acts was to issue
 an edict in which he justified his recent rebellion,
 by claiming a heavenly mission, in strict imitation
 of the usurper Tang (B.C. 1766), who published
 a like manifesto in explanation of his having over-
 thrown the last emperor of the Hea dynasty. He
 further followed the example of preceding founders
 of dynasties, in leaving at their posts all officials
 who were willing to acknowledge his sovereignty,
 and in giving every encouragement to the national
 literature, and thus succeeded in establishing his
 rule in the affections of the people. During Ming
 rule there was great literary activity, considerable
 refinement in manners, and material civilisation;
 the exquisite blue pottery was brought to great per-
 fection. The Portuguese obtained Macao, the Jesuit
 fathers came from Rome, and but for the quarrels
 between the Jesuits, Franciscans, and the Domini-
 cians, Buddhism, Taoism, and Confucianism
 would have disappeared. The Jesuit missionary
 Matteo Ricci acquired an unrivalled knowledge
 of the book language, and the style of his meta-
 physical and theological and scientific treatises
 commands the admiration of the Chinese. Hsai
 Kuang-ch'i, a scholar and statesman, was his
 intimate friend, and wrote a defence of the
 Jesuits. About this time there appeared the
 Encyclopædia of 22,000 books, with about
 1,100,000 pages; also the Chinese Herbal, and
 the imperial library had 1,000,000 books. The
 dynasty was overthrown by a popular rising, and
 a Manchu leader selected.

MINGAL, a tribe of rude and predatory habits,
 who occupy the southern hills of Jhalawan, from
 Khozdar to Bela in Las. They have two great
 divisions, the Shahi-zai and Phailwan-zai. The
 Bizunju, of which are two great divisions, the
 Amalari and Tanbarari, are west, but on the same
 hills as the Mingal. They are a violent people,
 and much addicted to rapine. The Zigger Mingal
 and Rakshani, who inhabit Nushki, have no
 proper towns or villages, but reside in tents, and
 are not migratory. Their river, the Kaiser, is
 useless for irrigation, and is lost amongst the
 sands. They cultivate wheat at the skirt of the hill
 ranges supporting the plateau of Saharawan.
 Snow seldom falls. The Zigger Mingal at one
 time occupied the Dasht-i-Guran near Kalat, but
 their increasing numbers compelled them to
 migrate into Nushki, dispossessing the Rakshani,
 of whom two tomons or clans still reside at
 Nushki. They have a good breed of horses, called
 Tarji. Their flocks are very numerous. Sahara-
 wan and Las are on a great mountain range or
 table-land that runs N. and S. Jhalawan, with
 less elevation than Saharawan, is held by Brahui
 tribes, amongst whom are the Mingal, Bizunju,
 and Samalari in the hills. The fixed population
 in their little towns does not exceed 10,000, and
 are greatly exceeded by the pastoral tribes, the
 great tribes of Mingal and Bizunju giving them
 the preponderance.

MINGULA-THOOT of the Burmese is supposed to be the Mangula Sutra, meaning the auspicious or fortunate discourse. It is a beatitude sermon of Gautama, containing 38 rules of life or a summary of beatitude. It is one of the first lessons taught to a Burmese youth.—*Yule*, p. 96. See *Mangala*.

MINHAJ-ud-DIN, author of *Tabakat-i-Nasiri*, a general history from the earliest times up to A.H. 658, A.D. 1259. His name was Abu-Umar Minhaj-ud-Din Usman-bin-Siraj-ud-Din al-Jurjani. In A.D. 624, A.D. 1227, he came from Ghor to Sind, Uchh, and Multan, and served under Sultan Shams-ud-Din Altamsh, the Sultana Razia, Bahram Shah. After the last was slain (A.H. 639), Minhaj-us-Siraj visited Lakhnauti, and in 642 returned to Dehli, where he was appointed president of the Nasiriya College. Honours were heaped upon him, and he was entitled Sadr-i-Jahan. The date of his death is not known.—*H. Elliot*.

MINIUM, Red oxide of lead.

Suranj of . . .	AVICENNA.	Menning rothes
Yuen-tan, Tan-fen, CHIN.		bleoxyd, . . . GER.
Chu-fen, Hung-tan, "		Sundoor, . . . HIND.
Oxide rouge de plomb, FR.		Minio, . . . IT.
Mining,	GER.	

Red lead is a brilliant red-coloured tri-plumbic oxide of lead. Massicot and minium may be produced at pleasure, by continuing the calcination of the metal first into litharge or massicot, the monoxide, and then into the red tri-plumbic tetroxide. It is largely prepared by Hindu chemists. It is used for purifying concentrated acetic acid, also to adulterate, or in lieu of, vermillion, and by glass-makers and painters. The Hindus smear it largely on their idols, or on stones to convert them into a deity.—*Smith; Royle*.

MINT, *Mentha sativa*.

Hibbuk,	ARAB.	Pudina, Nana, . . . HIND.
Pa-ho,	CHIN.	Menta romanna, . . . IT.
Baume verte,	FR.	Menta, SP.
Frauen murze, . . .	GER.	Widda, TAM.

Dried mint is esteemed as a medicine by the natives of India, and is prescribed by Muhammadan practitioners in dyspeptic complaints, and to stop vomiting. The common sorts are three,—spear-mint, pepper-mint, and penny-royal, also *Mentha hirsuta*, *M. crispata*, and *M. Canadensis*. The first is generally used for culinary purposes. It may be propagated by layers or cuttings or parting of the roots; it requires a moderate proportion of water. In the rains a small black caterpillar attacks the leaves, and will destroy the whole bed if not removed by hand or by flooding the beds, when the insect becomes detached from the leaves, and is easily destroyed. The mints are domestic medicines, carminative, antispasmodic, stomachic, astringent, sudorific, and alexipharmic. Dogs refuse to sleep on rugs beneath which mint has been placed, and this simple plant thus affords a good means of ensuring cleanliness.—*Riddell; Powell; Smith*.

MINTO, EARL OF, was Governor-General of India from the 31st July 1807 to 4th October 1813. In that time he prohibited the three eminent missionaries, Marshman, Ward, and Carey, from circulating tracts against Muhammadanism or Hinduism, and prohibited preaching in bazars. A sepoy mutiny occurred at Vellore in 1809, which was put down. The European

officers of the Madras army mutinied, and the Earl of Minto went there to support the local government, of which Sir George Barlow was the president. He sent an expedition to capture Bourbon and the Mauritius, and he accompanied the expedition which conquered Java. He sent Sir Charles Metcalfe to Ranjit Singh, with whom a treaty was concluded. He returned to England, but died at Stevenage on the 21st June 1814. His Indian career was written by his grand-niece the Countess of Minto, 1880.

MINTRA, a wild tribe in the Malay Peninsula, with numerous superstitions. They clear a small piece of ground in March, in July they set fire to the trees, which are then sufficiently dried, and at the beginning of September they plant paddy, cludy, etc. They are very partial to the flesh of monkeys. They use the sumpitan, which is a bamboo from 6 to 8 feet long; the arrows are slips of bamboo 10 inches long, with a piece of light wood at the bottom, shaped to the bore of the tube, which they propel by blowing hard, the point of the arrow being anointed with a prepared poison called *tipoh*. After two or three minutes the smaller animals vomit and fall dead. Large animals are generally able to run, after having been wounded, to a distance. These savages seldom miss their aim, but will shoot with their arrows monkeys seated on trees 70 or 80 feet high.—*Jour. Ind. Arch.*, 1851.

MIR. HIND., PERS. A chief, a president of an assembly, a title of any Syud, as Mir Akbar Ali, Mir Kasim Ali, Mir Mohib Ali; largely employed in compounding titular words, as Mir-munshi, head munshi; Mir-saman, head steward; Mir-Akhor, master of the horse; Mir-Bahr, harbour-master, a fisher tribe of Sind; Mir-Bakshi, paymaster; Mir-dah, head peon, head of ten.

MIRA BAI, wife of Lakha, the rana of Udaipur, capital of Mewar. She was a daughter of the Rahr of Mairta, the first of the clans of Marwar, and was celebrated for her beauty and her romantic piety. She was a poetess, and some of her odes and hymns to Krishna are yet admired, and supposed to equal in merit those of Jayadeva. She visited all the shrines of Krishna from the Jumna to Gujerat. There was a difference between her and her mother-in-law on some religious matters, and she therefore separated from her husband, and led a religious life. She left the effusions of her piety in the poems and odes which constitute the ritual of the theistic sects, especially those of Nanak and Kabir.

MIRABAU, a Penang wood of a light red colour; much used for ship-building, furniture, etc.

MIRABILIS JALAPA. *L. Marvel of Peru.*

Zahr-ul-ajl,	ARAB.	Rambut-polu-
Krishna keli, . . .	BENG.	kampat, . . . MALAY.
Zjibb-ul-ajl, . . .	EGYPT.	Sandal mulam, . . MALEAL.
Gul baji,	HIND.	Sendrikka, . . . SINGH.
Gul abbas,	"	Badrakaha, . . . TAM., TEL.

Cultivated as an ornament in most gardens; root considered as an aperient by the native doctors, etc. Its roots were long considered as the source of the true jalap; their taste is acrid and nauseous, and they abound in starch; the seeds also contain this principle. *M. dichotoma* and *M. longiflora* are reputed to possess similar properties. The flowers are of various colours,

red, white, and yellow, also variegated red and white, yellow and white. It becomes in a short time quite a weed in a garden.

MIRAGE.

Bahr-bi la-ma, . . . AR. | Namaish-i-ab, . . . PERS.
Si-kot, Chitram, . . . HIND. | Sahr-ab, . . . , ,

This phenomenon is the unreal waters alluded to in Jeremiah xv. 18; the parched ground of Isaiah xxxv. 7. It is said that beasts are never deceived by the mirage. But, to man, the distress occasioned in Arabia by a deficiency of water is frequently increased by the tantalizing appearance presented by the mirage. The light refracted in the rarefied air immediately above the heated ground gives rise to the resemblance of an extensive lake, and the thirsty traveller advancing towards it finds the flattering delusion recede before him. In the early part of the morning, while some dew remains on the ground, the perception is remarkably strong; every object is then also magnified, so that shrubs appear as trees, and under them frequently appear their images inverted, as if reflected from the surface of water. On the west of Jacobabad, in the Kalat territory, is a place famed for this deceitful appearance. It is there called the Lunpani Ab, or the shining of the minstrel's water. Dr. Bellow on the 8th January 1872 sighted two lofty mounds set together in the midst of the hard, dry clay desert, with shrubby bushes at their bases fringing pools of water, all remarkably clear and distinct. But as he approached near, the illusion disappeared, and the semblance dissolved to the reality,—two heaps of clay on the sides of a dry well-shaft, a few scattered salt-worts, and a patch of soda efflorescence. The tradition which gives this particular place its name is that a Lun or travelling minstrel, when crossing this desert, deceived by the appearance of so much water, emptied the cruse under whose weight he was toiling, and perished in the desert from thirst.

In the desert of Dhat and Umra-Sumra, where the shepherds pasture flocks, and especially where the alkaline plant is produced, the stratification is very horizontal, and produces much of the mirage. It is this illusion to which the inspired writer refers, when he says, 'The mock pool of the desert shall become real water.' The inhabitants of the desert term it Chitram, literally the picture, by no means an unhappy designation. This optical deception is well known to the Rajputs; is called See-kot or winter castles, because chiefly visible in the cold season; hence possibly originated the equally illusory and delightful Chateau en Espagne, so well known in Europe.

It is to be seen in every part of British India, just as Eothen describes (p. 271) the likeness of a fresh-water lake, 'like a broad sheet of calm water that stretches far towards the south, stretching deep into winding creeks, and hemmed in by jutting promontories, and shelving smooth off towards the shallow side. On its bosom the reflected fire of the sun lay playing, and seeming to float upon waters deep and still.'

'Though,' says he, 'I knew of the cheat, it was not till the spongy foot of my camel had almost trodden in the seeming waters that I could undeceive my eyes, for the shore-line was quite true and natural. I soon saw the cause of the phantasm. A sheet of water, heavily impregnated

with salts, had filled this great hollow, and when dried up by evaporation had left a white saline deposit that exactly marked the space which the waters had covered, and thus sketched a true shore-line. The minute crystals of the salt sparkled in the sun, and so looked like the face of a lake that is calm and smooth.'

The refraction of the atmosphere in the Eastern Archipelago is often marked. Dr. Bennett relates (ii. p. 72) that the ship's boats, while floating on a calm sea, at a distance from the ship, were magnified to a great size. The crew, standing up in them, appeared as masts or trees, and their arms in motion as the wings of windmills; while the neighbouring islands (especially at their low and tapered extremities) seemed to be suspended in the air some feet above the ocean-level. On another occasion the setting sun assumed the form of the hull of a ship, and in a few moments changed to a perfectly square shape.—*Bennett's Whaling Voyage; Eothen; Burton's Mecca*, iii. 23; *Tod's Rajasthan*, i. 18; *Col. Chesney*, i. 572.

MIRAJ-i-MAHOMED, or Jaddu-i-Mahomed, is a Muhammadan festival held on the 27th Rajab, in commemoration of the ascent to heaven of Mahomed. It is alluded to in the 17th chapter of the Koran, and Katib al-Wakidi says it occurred on the 17th Ramzan. On the occasion the angel Gabriel mounted Mahomed on the horse Burak, and conveyed him to heaven. Miraj is from the root URj.

MIR ALAM, the prime minister of the Nizam of Hyderabad. He died 1808.

MIRANZAI. In continuation of the Kohat valley, there runs the valley of Hungu or Hangu, 20 miles long by 2 or 3 broad, which opens into the plain of Miranzai. This latter plain, about 9 miles square, and bounded on the south-west by the Kuram river, scarcely 20 miles distant from where it emerges into the Bannu plain, is held by 7 fortified villages. The Zymosht Afghan are a small but brave tribe, numbering about 5000 fighting men, some of whom are well mounted. They inhabit a valley leading from Western Miranzai onward towards the crest of a range called the Pesar Kothul, over which General Roberts led a British Indian army in his advance on Kabul.

MIRAS. ARAB., TAM. Inheritance; any inherited property, patrimony. Mirasidar, the holder of a hereditary estate. In Benares the Mirasi is a class of Muhammadans who teach girls singing and dancing. Their women are also employed as jesters in the presence of native ladies, in zannas or female apartments of large houses. In Sind the Mirasi is a bard, who accompanied his chief to the field, and sang the Shair or war-song during the combat. In India he is often the same as the Nai, a musician, barber, and astrologer combined. Usually it means any hereditary right or office.

Mirasai is a revenue term introduced into India by the Muhammadans. It means that which is inherited, and seems to have been substituted for the Tamil term Kaniachi, or right of ownership by inheritance. The term Mirasidar corresponds to that of the Tamil Kaniachi-karan, and means a person exercising mirasi rights. In the mirasi tenure of lands of the S. of India villages a certain number shared the land, democratic republicans among themselves, and regarding all others as servants.

Mirasidar is a revenue term in use in Bombay, signifying a hereditary occupant of land, whom Government cannot displace so long as he pays the appointed assessment on his land. The emperor Akbar, however, claimed all land as the property of the state.—*Campbell; Sherring.*

MIRA SALICIFOLIA is the Maire or sandal-wood timber tree of New Zealand.

MIRDA, migratory shepherds in the south of India.

MIR-DAH. PERS. Literally a master of ten, the chief of peons; also a land measurer, who must measure with a standard yard or gaz, with the seal of the principal town of the district affixed to it. The Illahi gaz, as fixed by Akbar, is the one used.—*Malcolm's Central India*, ii. p. 30.

MIRDUNG. HIND. A drum which is an accompaniment to the kunchnee ka taefa.

MIRGIA, a variety of the elephant in Cachar.

MIRI, of the Assam borders, occupy the country from the Sisi district to the Dihang river, S. and E. of the Dophla, and on lower land, stretching to the east, all along the north bank of the Brahmaputra, up to the Dihang river; they also settle at times on the south bank of the Brahmaputra river. The Miri and Abor tribes are expert bowmen, and use poisoned arrows.

The Tanæ Miri dwell in a fertile valley of the Sundri river, N.W. of the hill Miri. They have fifteen large villages, and cultivate rice. They tattoo their faces, from which the Assam people call them Anka-Miri.

The Ghy-ghasi Miri dwell west of the Dirjmo; the Sarak Miri are on both banks of the Subansiri in its hill course; and the Pani-botia Miri and Tar-botia Miri are near.

Miri of the plains are offshoots from Abor, and are claimed by that people as runaway slaves. But there are various clans of them, differing in external appearance. The Saiengya and Arengya clans crop their hair like the Abor.

MIR IZZAT ALLAH, author of *Travels in Central Asia* in the years 1812-13, translated by Captain Henderson, 1872.

MIR JAFAR, a nawab of Bengal, whom the English East India Company's Council raised to that office after the defeat at Plassey of Suraj-ud-Dowla. On the outbreak of war between Great Britain and France, Clive took possession of the French factory of Chandernagar on the Hoogly, which Suraj-ud-Dowla resented as an aggression. Clive with 1000 Europeans and 2000 sepoys met Suraj-ud-Dowla's army at Plassey, 70 miles from Calcutta, overthrew Suraj-ud-Dowla there on the 23d June 1757, and put aside Suraj-ud-Dowla in favour of Mir Jafar, for whom authority was obtained from the Moghul court. Mir Jafar, as the reward, was asked to pay a krór of rupees to the E. I. Company, and 85 lakhs to the naval squadron and the inhabitants of Calcutta, and 12,80,000 to Mr. Drake, the Governor, to Colonel Clive, Mr. Becker, Mr. Walls, and Major Kilpatrick; the total amount demanded being Rs. 2,69,77,500. But the nawab could only provide one-half of the asked amount, and even of the reduced amount one-third had to be accepted in jewels and plate. But, at the same time, Mir Jafar granted to the Company the zamindari of the Twenty-four Parganas around Calcutta, an area of 882 square miles, and in 1759 the Delhi emperor bestowed on Clive the right to receive the land tax. Clive

was raised to the rank of mansabdar of 6000 foot and 5000 horse, and received as jaghir a large allotment of land near Calcutta. Subsequently, after a ten years' tenure, Clive's jaghir reverted to the E. I. Company. In 1761 Mir Jafar was set aside, and replaced by his son-in-law Mir Kasim.

Suraj-ud-Dowla's forces at the battle of Plassey numbered 35,000 infantry, 15,000 cavalry, and 50 cannon.

MIR JUMLA, minister of Abdullah Kutub Shah of Hyderabad during the 17th century. He was originally a diamond merchant, and was known and respected throughout the Dekhan for his wealth and respectability before he was made minister. His son, Muhammad Amin was a dissolute and violent young man, who involved his father in a dispute with the court, and Mir Jumla applied to Shah Jahan and Aurangzeb. Shah Jahan haughtily ordered Abdullah Kutub Shah to redress Mir Jumla's grievances, which interference was resented, and Aurangzeb treacherously seized Hyderabad, reduced the fortress of Golconda, and rendered Abdullah tributary. Mir Jumla took service with the Moghul, attained the highest offices at the capital, and afterwards became the chosen counsellor of Aurangzeb, and one of the most useful instruments of his ambitious designs. He was imprisoned (supposed to be a pretence) in Dowlatabad by Aurangzeb, for a brief period, but joined Aurangzeb a day or two before his defeat of Shuja, on the 15th January 1659, and was second in command on that occasion. He drove Shuja into Arakan, where that prince disappeared. Mir Jumla was afterwards employed in the conquest of Koch-Bahar and Assam, but was forced by the rains to withdraw, and he died at Dacca on the 6th January 1663 (A.H. 6 Jamadi-us-Sani 1073), worn out by the fatigues which, though far in years, he had encountered equally with the humblest soldier. Aurangzeb immediately raised his son Muhammad Amin to the rank and to all the honours his father had held.—*Elph.* pp. 519-541.

MIR-KHOND was the literary title of Muhammad-bin-Khavand Shah-bin-Mahmud. He was born in 1492, flourished at the court of Husain Mirza at Herat. After many years of disappointment from want of patronage, he was at length befriended by the munificent minister Ali Shir Beg, who obtained him a suitable dwelling near Herat, and assisted him in collecting materials for his *History of the Early Kings of Persia*, from Kaionars to the Conquest of Iran by Alexander the Great, and down to A.D. 1471. Mir-Khond died in 1498, and his son Khondamir wrote an abridgment of his father's work, which he called *Khalasat - al - Akhbar*. Teixeira, a Portuguese traveller, published a translated abstract of Mir-Khond's book, and there is an English translation of Teixeira by Stephens; but the best translation of that portion of Mir-Khond's work which relates to the history of Timur's conquests, was published in Major David Price's *Muhammadian History*, in 1821. There is also a translation of Mir-Khond's *History of the Early Kings of Iran*, published by David Shea in 1852. He wrote his book in the cancalo-culasya caravansary built by the vizir Mir Ali Shir, to whom he dedicated his work, which he entitled *Rauzat-us-safa fi sirat al-anbia, o ul muluc, o ul kulafa*; which signifies the Garden of Pleasure, touching the lives of the

prophets, kings, and khalifs. The preface treats of the sciences or art of chronological history.—*History of Genghiz Can*, p. 429; *Ouseley's Tr.* ii. p. 392; *Markham's Embassy*, p. 33.

MIR MOHANNA, a celebrated pirate who ravaged the Persian Gulf. His stronghold was Bandar Reg, which the Persians and English took and razed.

MIR MUHAMMAD MASUM, author of *Tarikh-us-Sind*, a history of the conquest of Sind by the Arabs, and down to the time of Akbar. He took the takhallus of Nami. He was born at Bhakkar in Sind, and wrote A.D. 1600.—*Elliot's India*.

MIRPUR. Eastward of Hyderabad in Sind is Mirpur, the stronghold of a former chieftain of the Talpur house; still farther towards the desert was Omarkot, noted as the birthplace of the illustrious Akbar. This was long looked upon as the depository of the accumulated wealth of the Kalora and Talpur rulers, and the point in which the chiefs would make a stand in case of an invasion of their country.

MIRRORS are in use in every household of the Muhammadan and Hindu races, also amongst the Chinese, Japanese, and Malay. They are sometimes of polished metal. With the Japanese, the bronze mirror with its stand holds a prominent position. This mirror is usually circular, from 3 to 12 inches in diameter, made of bronze, and with a bronze handle covered with bamboo. The reflecting face is generally more or less convex, polished with a mercury amalgam, and the back is beautifully ornamented with a gracefully-executed raised design. Some for the rustic population have also polished letters. Japan belief is, that as the sword was 'the soul of the Samourai,' so is the mirror the 'soul of woman.' It therefore constitutes the most valuable of all her possessions, and two mirrors form part of the trousseau of every Japanese bride. The characteristic qualities of the mirror must, it is believed, be in accordance with the constitution of the possessor, and second sight is resorted to in the selection of a mirror. The fortune-teller, instead of looking at a girl's palm, regards the reflection in a mirror. Instead of referring to the book of the recording angel, the Japanese Plato brings before the boatman his evil deeds reflected in a mirror.

MIR TAHIR MUHAMMAD, NASYANI, son of Syed Hasan of Tatta, is the author of the historical work *Tarikh-i-Tahiri*. He left Kandahar when it was beleaguered by the Persians, for Tatta, A.D. 1606, A.H. 1015, and he wrote his book A.D. 1621.—*Elliot's Hist. of India*.

MIRWARI, a Brahui tribe located in Mushi, Jhow, and Kolwah. The Brahui entered from the west, and point to Khozdar as the capital prior to occupying Kalat. See Kalat.

MIRZA. **PERS.** An honorary title, from two Persian words, *Amir-zadah*, nobly born; when prefixed to a name, as *Mirza Abdul Baki Khan*, it means a secretary, a munshi; when suffixed, as *Abbas Mirza*, it means prince Abbas.

MIRZA KHAN, styled *Khan Khanan*, son of Bahram Khan, was the second of Akbar's generals. He made the Persian translation now extant of Baber's Memoirs, from the Turki, in which Baber wrote.—*Elph.* p. 468.

MIRZAPUR, a town and district in the N.W. Provinces of British India, the district lying between lat. 23° 51' 30" and 25° 31' N., and between

long. 82° 9' 15" and 83° 36' E. Area, 5217 square miles. It has grown and prospered under the British rule since the latter part of the 18th century, and, as a mart of trade, ranks next to Calcutta and Bombay. The grains, cotton, and the dyes of one-sixth of India are sold here. Mirzapur has risen purely from commercial causes, unconnected with religion or the auspices of royalty. In Mirzapur is seen the most beautiful market-place or *chauk* of all India. Four miles from Mirzapur is the temple of Bindachul.

MIRZA SALIM, the Jahangir of Indian history, was son of the emperor Akbar. He was born near the abode of Moin-ud-Din, Chisti. They show to this day the little roof of tiles, close to the original little dingy mosque of the old hermit, where the empress gave birth to Jahangir. There is not a greater among Muhammadan saints than the wali Moin-ud-Din, who was a Persian of Chist, but whose holy dust remains in Ajmir. The empress happened to be pregnant about the time, and remained in the vicinity of the old man's hermitage till the promised boy was born. He reigned A.D. 1605–1627.—*Tr. Hind.* ii. p. 4.

MISCHODON ZEYLANICUS. *D.C., Thw.* This is the Tamana of the Singhalese. It is a fine large tree, common in Ceylon, near Colombo and Kandy. The young leaves are of a beautiful red colour. The timber is excellent. It seeds abundantly; is most readily propagated from seed.—*Beddome*.

MISHMI, of the Assam borders, dwell between the north and the east branches of the Brahmaputra river. They have several subdivisions, of which the Chul-katta or crop-haired are the chief. Some of the Abor and some Bor Khamti are mixed with them. Their colonies sweep round to the east of the Dapha Blum mountain, and then up the valley of the Brahmaputra proper to the confines of Tibet. They extend west to the Digaru river (lat. 27° 40' to 28° 40' N., and long. 96° to 97° 30' E.). They are a short, sturdy race, of fair complexion for Asiatics, well-knit figures, and active as monkeys; they vary much in feature. The clans best known in the plains are the Tain; the Maro are to the south of the Brahmaputra. The most eastern known to the British are the Mishia; they are perhaps connected with the Miautzse, the aborigines of Yun-nan and other provinces of China.

MISHTI KHEL, a dependent section of the Orakzai clan, with about 3000 fighting men. They occupy the hills from the exit of the Kobat river to Kasha.—*N.W. Frontier*.

MISKAL. **ARAB., HIND.** A measure of weight of 63½ troy grains.—*W.*

MISKAT-ul-MUSABIH, literally the niche for lamps; a collection of the most reliable of Muhammadan traditions, according to Sunni views. It was translated in 1809 by Captain A. N. Mathews, Calcutta.

MISR. In the districts of Gorakhpur, Azimgarh, and Benares is an agricultural tribe who call themselves Bhuin-har or Bhun-har. They claim to be Brahmans, and take the titles of Thakur, Misr, and Tewari; the raja of Benares belongs to them. Misr or Miara is also a surname given to a Brahman of the Kanoujia tribe, and especially to the members of two of the subdivisions, got, or families belonging to it, those of the Sandal and Katyayana or Viswamitra got. The term Misr has been conjectured to have been connected with the

ancient name of Egypt Misr, as if some of the Brahmans had come from that country; it is more probably of affinity to Misra, mixed, indicating some mixture of race or family, the tradition of which has perished.—*Wilson*.

MISSI. ARAB., HIND. A powder made from gall-nuts, sulphate of copper, steel filings, mirobalans, and the pods or gum of the kibur acacia. Hindu and Muhammadan women use it as a vitriolic dentifrice to dye the teeth black. It is rubbed into the roots of the teeth. The colour is between rust and verdigris, and the appearance unnatural and offensive; and it is probably a custom resembling that of Japan, and, like that of the Kyan of Prome, adopted to destroy the natural attractiveness of the married woman, for it is only applied to married women's teeth.

Safed-missi is an oxide of zinc; to make white missi, take safaid surum (crystallized carbonate of lime, double refracting spar) and cinnamon; pound together. It is used as tooth-powder.

Kala-missi or Missi-siah is an oxide of manganese.

Hira-kassis is a dry persulphate of iron, used in dyeing, in making ink, blackening leather, used in medicine, and made into missi to apply to the teeth. To make black missi, take of hira-kassis, chaipal harra, chuni-gond, lila tutiya, iron filings, kuth, equal parts, pound and mix.

Sada-kassis is an impure sulphate of iron, the refuse from the manufactory of the sulphate of copper.—*Herklots; Gen. Med. Top.; Burton's Scinde*.

MISSIONARIES. The south and east of Asia has been a scene of proselytizing labour from remote times. The earliest recorded missions in India were of the Buddhists, who sent agents to every country around, and forms of their faith still prevail in Tibet, in Ceylon, Burma, Siam, Cochin-China, Java, China, and Japan. No sooner had Sakya left the scene of his labours in Northern India than councils were held; and while members of it were sent into Bactria, others advocated their faith by their writings. The intercourse between China and India was kept up by missionaries, two of whom, Fa Hian and Hiwen Thsang, of the 5th and 7th centuries, have left behind them histories of their travels. Pilgrims from China to the present day continue to visit India; Banyiu Nanjio and Kasawara, monks from Japan, have sought for information as to their religion in the library of Oxford University; and the monasteries in Ceylon, aided from Siam, are putting forth violent polemical tracts in support of their own faith, and attacking Christianity. Ancient Buddhist writings are in two forms,—the Pali canon as preserved in Ceylon, Burma, and Siam, and the Sanskrit canon, preserved partially in the libraries of Nepal, but far more fully represented in Chinese, Tibetan, and Mongolian translations. The Yueh-chi, Parthia, Khoten, Kabul, Bukhara, and Tibet all drew on India for their sacred literature. In A.D. 65, the Chinese emperor Ming-ti sent eighteen commissioners to India, and they returned to China to preach Buddhism, A.D. 67. The names are now known of forty missionaries who have been engaged in translating from Sanskrit into Chinese. In the early part of the 4th century, a descendant of Sakya's family, named Budhabhadra, settled in China to help in the translation of the sacred canon which contained the teaching of his great

ancestor. The collections containing the canonical books of the southern Buddhists are called the Tripitaka, and the Udanavarga is the northern Buddhist version of Dhammapada.

Buddhism prevailed in parts of India from B.C. 350 to the close of the 12th century A.D. It was prevalent along with, and intervened between, two forms of religion which the Aryan Hindus have practised, those of the ancient Vedic creed and the Puranic polytheism of the moderns. Since the latter form has been current, the Aryan Hindus, believers in Siva, or in Vishnu, or in any of the many incarnations of the latter deity, and of their sakti or female energies, have striven to bring over to their views the aboriginal Turanian races whom they found preoccupying the country, and their conversions of the hill and forest indigenes is by whole tribes. Their missionaries are continuously converting them. From about A.D. 700 an almost unbroken succession of gifted men have been proclaiming modern Hinduism. There will be found notices of their lives under their respective names,—Sankaracharya, Kumarila Bhatta, Madhavacharya, Chaitanya, and Valabha Swami; with Kabir, the weaver; Nam Deo, the tailor; Ram Das, the tanner; Dudu, the cotton cleaner; Krishna, the founder of the Manbhaw sect; and Tuka Ram, the cultivator.

It has been the policy of the East Aryan Brahmans to regard all who do not follow their teachings as immeasurably their inferiors in the social scale. Even those who follow caste rules, if of other than Brahmanical descent, are deemed to be greatly their inferiors. Repeated efforts to throw down this caste barrier have been made by reformers, both of Aryan and non-Aryan descent, but the learning, ability, knowledge of official business, and unanimity of the Brahman race, have enabled them to hold their undoubtedly high position, and many of the non-Aryan tribes welcome the Hindu missionaries, influenced by the desire of being nearer the high-caste Brahman. But the craving of the Hindu races for a monotheistic creed is incessant, and many reformers have appeared who gained converts. The Sikh religionists are one of these, the Sad'hs are another, as also in a Hindu form are the Lingaet, the Baishnab, and the Satani. Ram Singh, the Kuka, carpenter, in the space of ten years counted his followers by hundreds of thousands. Dudu Mehan, a Bengali Musalman, was a weaver, and his followers may still be counted by thousands.

The sects who accept Siva or Vishnu strive to inculcate the view that the object worshipped by them is the one true God. In the early years of the 19th century, a great monotheistic movement was effected by Ram Mohun Roy, a Brahman of Bengal. Under the name of Brahmoism, it has become a theistic system, solely based on natural religion, exhibiting all the characteristics of a practical cultus, with its temples, priests, and worshippers. They have unpaid missionaries throughout the whole of India. They are seeking to fuse all the creeds of the world in a religious synthesis resting on the universal revelations of the conscience and reason. The views of Ram Mohun Roy have been expanded by several eminent men,—Dwarkanath Tagore, Debendra Nath Tagore, and Keshub Chunder Sen. It was Ram Mohun Roy who founded the Brahmo Somāj or Society of God, which was based on the

unity of God as revealed in the Vedas. He was succeeded as a leader by Debendra Nath Tagore, who had previously founded the Tattva Bodhini Sabha, which merged in the Brahma Samāj; and later on, Keshub Chunder Sen claimed for the sect the position of followers of a revealed, in contradistinction to philosophical, deism. Before his death in 1884 he became a visionary.

Since the beginning of the Christian era, Christian missionaries of every sect have striven to win the many races to a belief in Jesus. There are at present in British India, Burma, Cochin-China, and China, missionaries from many of the numerous sects of Christians in Great Britain, Germany, France, Portugal, Spain, America, and Italy; but in British India, in 1881, the numbers of Christians were under two millions:

American Church, . . . 737	Lutherans, . . . 25,577
Armenian, . . . 1,308	Other Protestants, 107,886
Church of England 353,713	Roman Catholics, 963,058
Church of Scotland, 20,034	Syrians, . . . 304,410
Episcopalians, . . . 20,135	Others, . . . 60,833
Greeks, . . . 834	

Ever since the Portuguese came to India, missionaries have been labouring in the southern districts of the Peninsula. The earliest were of the Romish persuasion,—St. Francis Xavier (1542), Robert de Nobilibus (1606-1660), John de Britto, who was martyred in Madura by the Senapati in 1693; Father Beachi, the eminent Tamil scholar (1746); and the Abbé Dubois of the closing years of the 18th century. Of Protestant missionaries in the south of India there have been Ziegenbalg and Plutshau (1705), followed by Schultze (1725), Schwartz (1750-1798), Kiernander (1758), followed by Fabricius, Klein, Jaenicke, Rottler, Kohloff, Rhenius (1820), Schmid (1820), Sargent and Caldwell still (1884) working. Bombay had John Wilson. Two Christian missionaries named Joseph Taylor, father and son, occupied districts of the Bombay Presidency. The son founded the Christian village community of Borsad in Gujerat. Bengal has had Carey, Marshman, Ward, and Alexander Duff. In Burma, Judson, Bennet, Wade, Boardman, Mason, Abbot, and Bishop Bigandet have made many converts. These missionaries have offered education and equality, and have established schools open to all.

The number of Christians in China is estimated at 800,000. It seems to have been early preached in China. Arnobius, writing about A.D. 300, makes mention of the Christian deeds done in India, and among the Seres, Persians, and Medes. There were Christian monks in China in the time of the emperor Justinian, and two of them brought the eggs of the silk-worm in a hollow cane to Constantinople, A.D. 552. Salibaz-acha, a Nestorian patriarch, created the metropolitan sees of Sina and Samarcand, A.D. 714-727. A monument with a Syriac inscription of the Nestorian missionaries was discovered at Singan Fu, in the N.W. of China, in A.D. 1625, and seems to have been erected A.D. 635. Native scholars regard it as a most valuable specimen of the calligraphy and composition of the age of the Tang dynasty. In the days of Marco Polo there were in Yun-nan many Nestorian Christians, none of which sect now remain.

The Romish form of Christianity is called by the Chinese Teen-Choo-Keaou. Their missionaries, one of the most famed of whom was

Père Ricci, have made great progress; and since the middle of the 19th century the Protestant missionaries of Great Britain and America have extended it. Many of the Chinese have become imbued with a knowledge of the Christian doctrines. Tac-ping-Wang, an unsuccessful leader of a great rebellion in China, with many of his followers, were believers in the Old and New Testaments. It was a great movement of fanatic Christians from near Canton.

In the north of Asia, the Greek Church is making great efforts in Irkutsk, the Trans-Baikal province, and the Altai. In 1879, the great Manchu Lama, Tapchin-Nag-bu-Mangolaiev, at Chita and at Verniudinsk, was present in 1878 at episcopal celebrations, which produced upon him a profound impression, and in the waters of Lake Baikal he received baptism.

Jews seem to have been in China B.C. 258. They call themselves the Tiau-kin-Kiau, 'the sect which plucks out the sinew,' alluded to in Genesis xxxii. 32, 'the children of Israel ate not of the sinew which shrank.' The Jewish monuments of China are at Kai-fung-foo. About 200 is the remnant of all the colonies.

The Muhammadan faith was propagated partly by forcible conversion, but largely in Persia, Sind, British India, Ceylon, Sumatra, and the Archipelago, by zealous, devout men. Their numbers in these countries may be about three hundred millions, principally converts from the West Aryans or Iranians in Persia, and from Turanian and Mongolian races in the East Indies. Comparatively few of the East Aryans have accepted Islam. The conversions among the Rajputs of Northern India, among the Jat of Hindustan, Sind, and the Panjab, have been in whole tribes; in Lower Bengal and amongst the Malays of Acheen, in whole nations. Muhammadans largely use the Arabic Koran, and that language is taught in the schools attached to the mosques. Great conversions have also been effected amongst the races in Northern Africa.

Muhammadans in China are supposed by Mr. Edkins (p. 178) to be of the Persian and Turk races. They entered China between the 11th and 17th centuries, but principally in the time of the Sung and Ming dynasties. They are most numerous in N. China, where in some parts they form a third of the population. Their mosques are called Tsing-chin-sze, pure and true temple. The name of their sect is Hwei Hwei, which is derived from Uigur. They call God Choo, Lord, or Chinchoo, true Lord. In some northern cities they place over their doors the words Hwei Hwei, Muhammadan, or Kiau-mun, religious sect.

MISTLETOE. Lih-huh, CHIN.; Tung-ting, MANCHU. Viscum album.

MISWAK. HIND. A substitute in India for a tooth-brush made from a twig of the margosa, the rough Achyranthes, Careya arborea, Phyllanthus multiflorus, and the palmyra, or any soft wood chewed at one end.

MITAKSHARA. This is a book by Vijnaneswara Bhatta, who flourished in the 10th century of the Christian era. It is a commentary on the law book of Yajñavalkya, which again is an abbreviation of Menu, composed in the 4th or 5th century, and more suited to modern requirements than the older work. The Mitakshara is still the chief authority in all parts of India on

civil contracts and the law of inheritance, and a good edition and translation are much to be desired. The little work of Stenzler (Berlin 1849) contains a clear edition of the text and faithful translation of Yajñavalkya's couplets.

MITANLI, in Persia, a sect of freethinkers, who deny everything they cannot prove by reason.—*Chesney*; *MacGregor*, iv. p. 134.

MITE, a species of *Acarus*. The *Acarus coffeæ* or coffee mite is so small as to be hardly perceptible to the naked eye. It is closely allied to the red spider of the hothouses of Europe. Nearly all the year round, but chiefly from November to April, it feeds on the upper side of the coffee leaves, giving them a brownish sunburnt appearance. Individual trees suffer from its attacks, but the aggregate damage from it is not great. Scarlet mite or red spider, the *Acarus telarius* or *Gamasus telarius* insect, envelops the leaves of a plant in a delicate, closely-woven web, which so checks the respiration that the plant becomes dry and withered. See *Insecta*.

MITHAI. HIND. Sweetmeats of India are of many kinds, but they are chiefly formed of sugar, clarified butter (ghi), and wheat flour, or milk and sugar, or with various pulps of fruits and sugar. The bazar sweetmeats are not palatable to Europeans.

MITHA-IONARI. MAHR. A caste who make salt from inland saline deposits or marshes.

MITHA-NIRAKH. MAHR. Salt heaps. After manufacture, salt is heaped. Earth mounds 2 to 3 feet high are made, on which, after manufacture, salt is heaped, and protected from the rain by a thatch or mud cover. If left uncovered, some of the salt melts, but a thick hard coating is soon formed which protects the remainder of the heap.

MITHANKOT, a municipal town in Dehra Ghazi Khan district, Panjab, once situated on the high bank of the Indus a short distance below its confluence with the Panjnad, 12 miles south of Rajanpur, and 85 from Dehra Ghazi Khan.

MITHILA, a historical country north of the Ganges, between the Gandak and Kosi rivers, comprehending the modern provinces of Puraniya and Tirhut. The remains of the capital founded by Janaka, and thence termed Janakapur, according to Buchanan, are still to be seen on the northern frontier, at the Janickpur of the maps. Nearly coeval in point of time with Ayodhya was Mithila, founded by Mithila, grandson of Iśhwara. The name of Janika, son of Mithila, eclipsed that of the founder, and became the patronymic of this branch of the Solar race. These are the two chief capitals of the kingdoms of the Solar line described in the early ages, though there were others of a minor order, such as Rotas, Champapur, etc., all founded previously to Rama.

But Mithila, according to Elphinstone (p. 215), seems to have been the capital of a sovereignty in Rama's time, and to have endured till A.D. 1325. It was the capital of the father of Sita, wife of Rama. It is little mentioned in history, but it was famous for a school of law, and has given its name to one of the Indian languages. By the numerous dynasties of the Lunar race of Budha many kingdoms were founded. Much has been said of the antiquity of Purag, yet the first capital of the Indu or Lunar race appears to have been founded by Sehesra Arjuna of the Hihya tribe. This was Mahesvati on the Nerbadda, still existing

in Maheswar. The rivalry between the Lunar race and that of the Surya race of Ayodhya, in whose aid the priesthood armed and expelled Sehesra Arjuna from Mahesvati, has been mentioned. A small branch of these ancient Hihya, until the early years of the 19th century, were still existing in the line of the Nerbadda, near the very top of the valley at Sohagpur, in Baghelcund, aware of their ancient lineage, and, though few in number, were still celebrated for their valour. Kusust'hulli Dwaraka, the capital of Krishna, was founded prior to Purag, to Surpur, or Mathura. The Bhagavat attributes the foundation of the city to Anirt, the brother of Iśhwara, of the Solar race, but states not how or when the Yadu race became possessed thereof. The ancient annals of the Jeysulmir family of the Yadu stock give the priority of foundation to Purag, next to Mathura, and last to Dwaraka.—*Tod's Rajasthan*, i. p. 39; *Wilson's Hindu Theatre*, i. p. 298; *Elphinstone*.

MITHRA or Mithras, the sun, the object of worship of the ancient Aryans, the Bactrian sun-god. Mithra is not mentioned in the Gatha of Zoroaster. In the Vedas he is rarely invoked alone, but generally along with (Ouranos) Varuna, the heavenly vault. In the later Iranian religion, Mithra is included as one of the Yayata, and in the Mithra prayers he addresses Ahura-mazda. It appears that there were two forms of worship in Vedic India,—the one domestic, universal, celebrated three times a day, the other rare and exceptional, but both blended by a compromise into one incongruous whole. The worship of the elements was clearly the national faith, with its offerings of the fruits of the earth, soma juice, barley, milk, and butter. Animal sacrifice came from without, corrupted more and more, and at last losing sight altogether of its original import. Indra and fire-worship was the later form on Indian ground. The aboriginal tribes to the present day sacrifice buffaloes and other animals, and there is no trace of fire-worship among them. On the other hand, the Viswamitra or Agnisara claim the honour of having been the first to introduce the worship both of Agni and Indra in various sakta of the Veda. Viswat Mithra, however, was the name of a body of immigrants; Viswamitra, the men or people of Mithra.

Agastya, a native of Tibet, is a Maha Muni, of great celebrity in the legends of Southern India: He methodized the Tamil language, and is the chief Tamil medical authority. He is estimated to have lived in the 6th century A.C. According to Hindu legend, Agastya was the son of Mithra and Varuna conjointly, and born in a water-jar along with Vasishtha. Having commanded the Vindhya mountain to lie prostrate till his return, he repaired to the south of India, to Kolhapur, where he continued to reside, and appears to have been mainly instrumental in introducing the Hindu religion into the Peninsula.—*Wilson's Hind. Theat.* i. p. 313; *Rev. W. Taylor*; *Dr. Caldwell*; *As. Soc. Trans.* iii. p. 218.

MITHRIDATES. The disruption of the empire of Eucratides enabled Mithridates I., a Parthian monarch, to seize upon a large part of his territories; and he made a successful invasion of India about A.C. 140, and there is reason to believe that satraps (chatrapati) or governors were left by him in possession of the Panjab, where coins of Parthian princes have been found,

the dates of which are placed between the years 90 and 60 B.C.—*History of the Panjab*, i. p. 57.

MITHRIDATUM, the Theriaca Andromachi or T. Damocratis of the ancients, represented in India by the Tariaf faruk of the bazars.

MITRA. SANSK. A friend, from Mid, love. Mitra-caca, a crow, so named from her friendly disposition. Mitra-vinda, from Mitra, a friend, and Vid, to obtain.

MITRAGUPTA, son of Ohandragupta, was known to the Greeks by the name of Allitro. Diamachus was an ambassador from the Greeks of Babylon to Mitragupta.

MITRA-MISRA, author of the law book Vira Mitrodaya.

MITRA-VARUNA, a name of the Hindu god Ila, the analogue of Neptune.

MITREPHORA GRANDIFLORA. *Bedd.* A large and very handsome tree in the South Canara ghat forests, growing at an elevation of about 2000 feet. When in full flower it is very beautiful, its large flowers giving it at the distance more the appearance of a magnoliaceous than an anonaceous tree. The three inner petals are mitriform, are early deciduous, but the three outer ones subsequently increase in size, and turn from pure white to yellow; the timber is very tough.—*Beddome, Fl. Sylv.* p. 75.

MITREPHORA HEYNEANA. *Blume.* Oropheia Heyneana, *H. f. et T.* A middle-sized tree, growing at Haragam and other places on the lower Badulla road from Kandy, up to an elevation of 1500 feet.—*Thw. Zeyl.* p. 8.

MI-YO-PHA-LA. BURM. Hereditary descent from father to son.

MIZZ, ARAB., in colloquial Arabic Misd, are tight-fitting inner slippers of soft Cordovan leather, worn as stockings inside the slipper. They are always clean, so they may be retained in the mosque or on the divan.—*Burton's Mecca*, ii. 34.

MOALLAKAT. ARAB. Poetic compositions, which the ancient Arabs were accustomed to suspend in competition with other poets; the word means suspended. Several of them continue to be much admired. Of these may be mentioned the two poems of the Mantle,—one recited by Kaab, son of Zoheyr, in the presence and in praise of the prophet Mahomed in the ninth year of the Hijra; and the other written 600 years later by El-Busiri, and still, after six centuries more, renowned through all the kingdoms of Islam, inscribed on amulets, and chanted in sickness and over the dead.

MOASHUR. HIND. A variety of magic squares.

MOAWIYAH-ibn-ABI SOFIAN was governor of Syria, but renounced allegiance to Ali, and proclaimed himself khalif of the Western Provinces. Moawiyah (A.D. 671-678) for seven successive summers renewed the endeavour to take Constantinople, at length felt himself under the necessity of sending envoys to sue for peace from the emperor Constantine Pogonatus. The latter agreed, and sent the patrician Joannes Petasgaudius (the Yen-yo of the Chinese) to Damascus to conduct the negotiation with the Arabs. The result was that the latter pledged themselves to a 30 years' peace, and to pay to the empire every year 8000 pieces of gold, 50 slaves, and 50 horses.—*Yule, Cathay*, i. p. 60.

MOCHA, a town in Arabia. It had its origin

about A.D. 1480, by the people flocking around the learned Shaikh Ali Shaduli-ibn-Oman. About the beginning of the 17th century, the English and Dutch E. I. Companies established factories there, and carried on a lucrative commerce with the Indian ports. At this time the revenues amounted to Rs. 75,000 per annum; ships from all parts of the east anchored in its roadstead, and caravans from Egypt and Syria, and from the eastern nations of Europe, flocked to its markets. In the beginning of the 18th century the French established a factory at Mocha, which was then at the height of its prosperity. In the early years of the 19th century its condition had changed. In 1836 it was half in ruin, and the trade had been decreasing for many years, the result of misgovernment by the Turks or Arabs (it was plundered by the latter twice). The country around Mocha is a barren plain.—*Playfair, Aden*.

MOD. MAHR. The broken or cursive or running handwriting used by the Mahrattas on ordinary occasions.

MODERA is about 25 miles in length, lying to the N.N.E. of the Great Ki, distant about 60 miles, and is the south-westernmost of a group of high islands which, until lately, were considered as forming a part of New Guinea. The inhabitants are Papuans. The sea is unfathomable at a short distance from the island, but there are several indifferent anchorages on the north side.

MODI. HIND. A chandler, a grocer. Modi khana, the shop; amongst the Mahratta race, the Army Supply Department, the commissariat.

MODI, Mora, or Mudi, in the Bombay Presidency, a land measure of 45 guntas of 33 feet square each = 4900.5 square feet, or $1\frac{1}{11}$ of an acre. In Mercara and the Padinalkanad taluks of Mysore, it contains 30 linga raja poles in length, and 4 in breadth = 3414 square yards.

MOFUSSIL. PERS. In British India, any district outside of Calcutta, Madras, or Bombay.

MOGGILANA and Sariputra, the most distinguished of the earlier converts by Buddha and his companions; relics of them were found in the Bhilsa-topos.

MOGHI, Bagri, Bhil, Sondi, and Bhilala, in the 18th century had been for many years the worst enemies to the prosperity of Central India. The Bagri and Moghi came to Central India originally from the western parts of India, chiefly from the neighbourhood of Chitore. The Moghi hardly passed the Chambal, but the Bagri settled in the eastern parts of Malwa in considerable numbers; and about the beginning of the 19th century the Solunki Rajputs introduced 400 of them to garrison the small fort of Sattambari in Bernia, in which district, and others in its vicinity, there had been for a long period many settlers of this tribe. The Bagri are a very brave race. Their favourite pursuits were thieving and plundering. They were also mercenary soldiers. They were foot soldiers, but jamadars or leaders were usually mounted. Whenever they settled they remained in colonies, and even when three or four families fixed on a small village, they lived distinct from the other inhabitants. There were not more than 1200 in the countries of Bagur and Kantul, and their immediate vicinity. The Meena and Gujar who settled in Central India also distinguished themselves as expert thieves and robbers.—*Malcolm's Central India*, ii. p. 185.

MOGHUL, a term derived from Mongol. As a title it was especially applied to the sovereigns of Dehli of the house of Timur, although they were equally at least of Turk descent, and presented in their appearance entirely Turkish characteristics. But Hindus apply this term, as also Turk, to all Muhammadans except the Afghans, whom they designate Pathans; and Moghulai is used to distinguish Muhammadan laws and territories from those of the Hindus and the British. Each of the successive emperors of Hindustan was known to Europe as the Grand Moghul; nevertheless the father of Baber, the founder of the dynasty, was a Chaghtai Turk, who spoke and wrote in Chaghtai Turki, and never alluded to the Moghuls but with contempt and aversion. His mother is said to have been a Moghulani. He said the horde of Moghuls have uniformly been the authors of every kind of mischief and devastation. With the Portuguese, the northern part of Hindustan, held by the Moghul sovereigns, was styled Mogor, and Goa and the western coast of the Peninsula was to them India, just as the British now designate as India all their possessions in Hindustan and the two Peninsulas, and as with the Dutch, India means Java, Sumatra, and the Netherland possessions in the Archipelago.

Moghul, in India, is at present applied to, and is indifferently used by, persons of Persian or Turk descent, though the former race assume also the title of Mirza, while the descendants of the civilians and soldiery from High Asia, whom Baber and others brought into India, have the tribal title of Beg, also that of Agha or Aka. Moghulani, a female attendant on a lady, a lady's-maid.

MOHAMMERA, a town in the Persian Gulf, at which the British Indian army landed in 1855, when attacking Persia.

MOHANA, a fisherman race in Sind, who appear to be converted Hindus, but they claim to be of Arab descent from the town of Arlitah. They have five clans,—the Bundri, Karācha, Lana, Jhabar, and Wungara. They fish in the creeks and channels. They profess Muhammadanism. The Jhabar eat the porpoise and crocodile, and are deemed unclean. The Mohana features are peculiar, and the complexion very dark; some of the women are handsome when young, but hardship, exposure, and other causes soon deprive them of their charms. They are to be found chiefly about the lakes of Manchar, Maniyar, and Kinjur. At the last place are some ruins of a palace built by Jam Tamachi, one of the rulers of Sind, who married Nuren, the beautiful daughter of a fisherman. The event is celebrated in the legends of the country, and the poet Shah Bhetac has given it a Sindi immortality in one of his Sufi effusions. The Mohana are not a moral people. Their language is gross in the extreme, and chastity seems to be unknown to them. The men are hardy and industrious, but addicted to bhang, opium, and other kinds of intoxication. They are admirable swimmers; children begin that exercise almost as soon as they can walk. They keep up regular mosques and places of worship, with Pir, Mullah, and all the appurtenances of devotion. The river Indus is adored by them under the name of Khajjah Khizr, and is periodically propitiated by a caste offering of rice, in earthen pots covered with red cloth. Their caste

disputes are settled by the headmen, who are called Changa Mursa, and invested with full powers to administer justice to those who consult them.

MOHANI, in Hinduism, a celestial songstress; 10 in heaven and 34 on earth.

MOHARI. HIND. A cornelian or agate point mounted on an iron handle, for polishing work.

MOHINI. SANSK. From Mooh, to be infatuated. In Hindu mythology, the female form of Vishnu with whom Siva associated, and Mohini brought forth Ayanar.

MOHMAND, a tribe of Pathans inhabiting the hilly country to the N.W. of Peshawur, between the Kabul and Swat rivers. Their clans are the Tarakzai, Alamzai, Baizai, Khwaizai, Utmanzai, and Dawezai. They could turn out 16,000 or 17,000 fighting men. Their country is rugged and unfruitful. In 1873, about 272 were in the British Native army. In 1851, a force under Sir Colin Campbell was moved against them; in 1854, another force was sent against them under Colonel Boileau, and in 1864 one under Colonel Macdonald. The Pindiali Mohmand worried the border for the first eleven years of British rule. The Mohmand subdivision of the Peshawur district is immediately south of Peshawur, and contained in 1808 a population of 40,443, Syud, Mohmand, Kashmiri, and Khatri. The chief of all the Mohmands has the title of Arbab.—*H. A., N.W.F.; MacGregor*, iii. 4. See Momund.

MOHRCHAL. HIND. A fly-flapper of peacocks' feathers.

MOHSIN FANI, author of the Dabistan.

MOHTUR or Pat, the Mahratta custom of widow re-marriage.

MOHUR or Ashruffi, a gold coin of India, now rarely seen, of 15 rupees value, so called from having had the sun's image.

MOI, Di-ditish, Nguon, Ro-moi, and Ke-moi are rude tribes occupying the mountain ranges between Tonkin and Cochinchina, and between Cochinchina and Cambodia. The Moi or Kamoi, on the opposite side of the Mei-kong, occupy the broad expansion of the Annam chain towards Cambodia, and appear to extend northwards along these mountains, marching with the Lau on the westward. They are said to be black savages, with Negro features. The Cambodians style them Kha-men; they are the Kho-men of Leyden and the Kha-men of Gutzlaff.

MOINEE, an order of Hindu devotees who vow perpetual silence. They go almost naked, and smear their bodies with cow-dung.—*Cole. Myth. Hind.* p. 389.

MOIRA, EARL, afterwards Marquis of Hastings, Governor-General of India from 1813 to 1821. During his incumbency, the third Mahratta war occurred, in which the British were successful, and the power of the Peshwas finally overthrown.

MOI-TAL, or Ka-the, a tribe in lat. 21° 15' N., and long. 94° E., south of Manipur, with the Komnaga in the S.W., the Lahooppa naga in the N.E., and the Cachari in the west.

MOIZ-ud-DIN ALLAH, the fourth khalif of Barbary, and the first king of Egypt of the Fatimate dynasty, A.D. 952-976. He subdued all Northern Africa, and built Cairo.

MOKANNA. Hashim-bin-Hekiam was his proper name. He was a native of Gheze, in the district of Merv. He early distinguished himself

by the keenness of his intellect, and enjoyed the reputation of being acquainted with secret arts. His father had filled the post of a sarhang or general under Abu Jafar Revaueki Balkhi, and Mokanna at first served in the same capacity under Abu Muslim. But on Abu Muslim's death, Mokanna openly proclaimed his religious views. He was seized and sent as a prisoner to Baghdad. How long he remained there is uncertain, but he came back from Baghdad, as did Bib in more modern days, strengthened in his delusions of a prophetic mission. In Merv he collected the remains of his former secret adherents, and proclaimed his doctrines with all the greater zeal.—*Vanberg, Bokhara.*

MOKSH or **Moksha**, in Buddhism, final annihilation, equivalent to the Buddhist and Hindu Nirvana. See Nirvana.

MOLAVE, a valuable wood of the Philippines, equal to teak. It is largely exported to China.

MOLLUGO CERVIANA. *Ser., IV. and A.*
Pharnaceum cerviana, *Linn.* | Parpadagum, . . . TAM.
Glimshak, BENG. | Parpataka, . . . TEL.

This plant grows in Peninsular India, where it is employed in medicine. *M. spergula*, *Linn.*, is *Gyen-ga* of the Burmese.

MOLLUSCA or Molluscs.

Sadaf,	ARAB.	Sipi,	HIND.
Fils assamak,	"	Conca, Conchilia, . .	IT.
Pesce de nicchio, . .	FR.	Conchudo, Concha, . .	SP.
Pescado,	GER.	Kilinjil, Matti, . . .	TAM.
Mahakia,	GR.	Silakulu,	TEL.

Mollusc is a term derived from the Greek word *μαλακός*, soft; and molluscs are animals whose bodies are soft, but are mostly protected by an external shell.

The mollusca are related to the zoophytes by the affinity of their simpler forms, and the higher classes of them to the fishes.

Distribution.—The ocean mollusca of the East Indies have an uninterrupted area from the Red Sea and east coast of Africa to Easter Island in the Pacific, and from Australia to Japan. They have some peculiar shells, but the genera throughout are in many instances identical; even a considerable number of the same species have been found throughout the region, and their general character is the same. Mr. Cuming obtained more than 100 species from the east coast of Africa identical with those collected by himself at the Philippines. Of the numerous mollusca of the Red Sea, only a very few are common to the Mediterranean, from which it would seem that these seas have communicated since the first appearance of some existing shells. *Meleagrina margaritifera*, or the pearl oyster, *Avicula*, occurs in the Persian Gulf, on the Madagascar coast, in the Straits of Menar, Torres Straits, at the Society Islands and Philippines.

Surgeon-General Balfour, when forming the Government Central Museum at Madras, and the Mysore Museum at Bangalore, arranged the mollusca and the catalogue of them in accordance with Mr. S. P. Woodward's Manual, a fourth edition of which was published by Mr. Tate in 1880. The shells in the Madras Museum were collected from every part of the Indian Ocean, the Arabian Archipelago, and Australasian seas. Dr. Traill in *Journal Indian Archipelago*, and Dr. Cuthbert Collingwood in *Rambles of a Naturalist*, have furnished useful information.

Mr. Benson of the Bengal Civil Service has been a large contributor to scientific journals, and he described Dr. Cantor's Chusan shells. Since then the mollusca of the East Indies has been treated in Lieut.-Colonel H. H. Godwin-Austen's *Land and Fresh-water Mollusca of India*; Geoffroy Nevill gave a *Hand List of the Mollusca in the Calcutta Museum*; Mr. Theobald printed a *Catalogue of the Recent Shells in the Bengal Asiatic Society's Museum*; Mr. Theobald and Mr. Hanley's *Conchologia Indica*, and Mr. Theobald's *Catalogue of the Land and Fresh-water Shells of British India*, have been the most important works for the Indian area. Lovell Reeve's work on the Mollusca extended to twenty volumes; and as a recent general work, Mr. S. P. Woodward's *Manual of the Mollusca* is of great value.

Writing in 1850, Mr. Woodward said that at least 15,000 fossil species of molluscan animals and 12,000 recent were then known. The numbers of living species have since been estimated at 16,792, viz. Cephalopoda, 190; Gastropoda, 13,146; Pteropoda, 79; Brachiopoda, 75; Conchifera, 3150; Tunicata, 150. Of these 5200 are animal feeders, 3255 vegetable feeders, 3376 infusorial feeders, and 4960 pulmonifera.

Propagation.—For the continuance of these creatures, the sexes are distinct in the most highly-organized (or dioecious) mollusca; they are united in the (monoecious) land-snails, pteropoda, opisthobranchs, and in some of the conchifers. The monoecious land-snails require reciprocal union; the limneidae unite in succession, forming floating chains. In a few species of gastropoda, a kind of viviparous reproduction happens through the retention of the eggs in the oviduct until the young attain a considerable growth.

The egg clusters of the Teuthidæ, calamaries, or squids, have been estimated to contain 40,000 eggs. The *Lanthina* ocean-snail secretes a raft from its foot, which serves to float its egg-capsules. The spawn of some species consists of large numbers of eggs adhering together in masses, or spread out in the shape of a strap or ribbon, upon which the eggs are arranged in rows. This ribbon is sometimes coiled up like a watch-spring, and attached by one of its edges. The *Lanthina* are gregarious in the open sea, and feed on the small blue *acalephæ* (*Velella*). In rough weather, their floats are broken and detached, and the beach is then strewn with the shells. When handled, a violet fluid exudes from beneath the margin of the mantle. The egg-raft is too large to be withdrawn within the shell, and their eggs are attached to its under-surface.

Little is known as to the longevity of mollusca, but from the size of some of the bivalves, and from the partitions in the shell of the large nautilus, some of them must have many years of life. An Oyster Culture Company in England have verified oysters up to twenty years. At the age of two years oysters begin to give out spat, which assumes a calcareous covering in about a fortnight, and by the time they are a year old, the shells are about 1½ inches across. Neither has it been ascertained for how long the oyster continues to produce. Semicircular rings on the convex back of the oyster shell indicate repetitions of growth, but seemingly not annual growth. On one occasion the spat of one oyster was counted,

and found to number 1,740,000, but the quantities of spat are not continuous. In 1857, 1858, and 1859, the oysters on the British coast produced spat in great abundance, and it is supposed that this was in some relation with the warmer temperature of the water. The great enemy of the oyster is the star-fish. It spreads itself over the convex surface of the shell, and by some mechanical process or chemical action bores through to the animal within. The dog-whelk, and also *Murex erinaceus* or sting-winkle, also destroy many by boring through the shell; and barnacles likewise destroy much of the young spat. The starfish swallow the smaller bivalve entire, and dissolve the animal out of its shell.

Defence.—To protect themselves from enemies, many gastropods withdraw within their covering shell, and close the opening by a horny or shelly lid. Most spiral shells are provided with this means of sheltering themselves. Bivalve shells, as the oyster and mussel, close their valves. The cephalopods are provided with an ink-bag, from which it ejects a black pigment to cloud the water and facilitate its escape. This was formerly used for writing, and in the preparation of sepia, but Indian ink and sepia are now made of lamp-smoke or of prepared charcoal. In cold and temperate climates, the mollusca are subject to hibernation; also aestivation when the heat is great. In these changes they cover themselves with leaves, or hide in the mud; the limneidæ frequently glide beneath the surface of the water, and hibernate or aestivate in the mud. There are various other defences. The olives or rice-shell molluscs are very active animals, and can turn over when laid on their back; as the tide retires, they may be seen gliding about or burrowing in the sands. *Conus aulicus*, one of the cones (*Conidæ*), sometimes bites when handled. The solen or razor-fish, if taken from its burrow, can quickly re-bury itself.

Alimentary.—Molluscs are eaten by most races. Amongst these are the loligo, the oyster, mussel, cockle, periwinkle, the haliotis, scallops, and whelks; the arms of the cuttle-fish are eaten by the Neapolitans and Chinese.

Helix pomatia, the grand escargot or apple-snail, is eaten in France during Lent. They are reared and fattened in snail gardens. This was a culture of the ancient Romans.

Fusus antiquus (*Chrysodomus antiquus*), the red whelk, is largely dredged in Britain for food. Applied to the ear, a sound as of the sea may always be heard in it, from which it is named the roaring buckie. The common whelk of Britain, *Buccinum undatum*, is eaten by the people, and used as bait by fishermen. It is dredged for, and is also taken in baskets, baited with dead fish.

Another edible mollusc is the common periwinkle, *Littorina littorea*. Besides these, the mussel scallop, *Pecten maximus*, which is served up broiled, and the razor-fish (*Solen maximus*), the cockle (*Cardium edule*), the limpet (*Patella vulgata*), are all eaten. The mussels are full grown in a year, and from some unascertained cause they are at times extremely deleterious. They are largely used for bait.

The poor of India use as food species of *Cyclas*, *Cerithium*, *Nerita*, and *Corbicula*, one species found within tidal influence, and two others in fresh water. Also *Velorita cyprinoides*, Gray, of the family *Cyrenidæ*, *Unio*, *Linnaea stagnalis*,

Ampullaria glauca, L., *Planorbis indicus*, P. *Coromandelicus*, and *Paludina Bengalensis*.

Ommaastrephes sagittatus is the principal food of the dolphin and cachalots, as well as of the albatross and larger petrels, and is extensively used in the cod fishery off Newfoundland. Sailors call them sea arrows, also flying squids, from their habit of leaping out of the water, often to fall on the ship's deck. The pteropods swarm in all seas. In high latitudes they are the principal food of the whale, and also of many sea birds. The mussel, the limpet, the whelk, and the calamary are all used as bait in the fisheries.

Economy.—Many shells consist of two layers, an upper or outer, which is rough, and more or less developed, and an inner layer, called nacre, which is smooth. The nacre consists of a series of delicate layers one over the other in an imbricated manner, with their edges presenting a series of lines with waved margins. The brilliancy of the colours reflected from this iridescent surface depends on the thinness of the laminae or layers of the nacre; where the layers are thick, like those in the oyster, only a dull white appearance is presented, but, as in the ear-shell and mother-of-pearl shell, the iridescent colours reflected from the thin layers are beautiful; they are used for the ornamentation of papier-maché work, and for other ornamental purposes. As seen in cabinets, the outer rough layer is always removed, and the hard layer below polished. The beautiful pearl, so largely used for ornament, the name of which is synonymous with purity, is the produce of various species of molluscs. The nacre is secreted by a part of the mollusc known as the mantle, and a pearl is the result of the nacreous matter being secreted by the mantle around some nucleus lying loose in the body of the shell, generally a grain of sand or some loose particle of nacre. The largest pearls are obtained near Ceylon in the Persian Gulf, and in the Persian Gulf on the coast of Arabia, from the pearl oyster, the *Avicula margaritifera*, in eastern seas from *A. fimbriata* of California. The shells are opened, and the pearls picked out, and the shells are used for their nacre, which is called mother-of-pearl, almost as valuable as the pearl, being, with that of the *Haliotis splendens*, extensively employed in ornamenting papier-maché work.

Smaller-sized pearls are obtained from the common oyster, the British river mussel (*Margaritana margaritifera*), also in the *Anodonta cygnea*, the *Pinna nobilis*, the *Mytilus edulis* or common European mussel, in the *Perna* and *Spondylus gæderopus*. In these they are generally of a green or rose colour; the pearls found in *Arca noæ* are violet, and *Anomia cepa* purple. They are similar in structure to the shell, and like it consist of three layers; what is the innermost layer in the shell is placed on the outside in the pearl. The mother-of-pearl shell is extensively fished for in the straits and seas south of Singapore; the diving-bell is utilized, and the divers are natives of the Pacific islands.

Cameo ornaments are obtained by carving shells. The inner strata of porcellaneous shells are differently coloured from the exterior, and the makers of shell cameos avail themselves of this difference to produce white or rose-coloured figures on a dark ground. Cameos are used as brooches, pins, bracelets, etc., and the most

beautiful are cut on a large species of *Cassis* (*C. rufa*), known as the bull's-mouth, and found in the Mediterranean; but any shell can be made into a cameo, the term meaning any small carving on a solid object. The queen-conch or helmet-shell, *Cassis Madagascariensis*, and other large species of *Cassis*, also species of *Chama*, are used in the manufacture of the shell cameos. *Strombus gigas*, *L.*, the fountain-shell, is imported in immense quantities into Europe from the Bahamas, for the manufacture of shell cameos. Stone cameos are cut from the onyx, agate, and jaspers, and cost up to £40; a shell cameo, £2 to £4.

The shells of nearly all the Turbinidæ are brilliantly pearly when the epidermis and outer layer of shell are removed. Many of them are used in this state for ornamental purposes. The Chinese carve a variety of patterns in the outer opaque layer of the nautilus shell, relieved by the pearly ground beneath. Species of the genera *Trochus* and *Phasianella* are used as beads. *Cypræa tigris*, which is prettily spotted with black, is frequently made into snuff-boxes in England. The mantle is so large as to cover all the shell, on the back of which there is often a longitudinal line which marks where its two folds meet. This membrane continually secretes an abundance of viscid fluid which lubricates the shell, and preserves the beautiful polish which has procured for them the name of porcelain shells.

The shells of species of *Nautilus* and *Carinaria* are prized for ornamental purposes. The beautiful paper *Nautilus*, *Argonauta argo*, is admired by all who see it for its graceful form, delicate structure, and pure colour. The argonaut or paper sailor is thin and translucent. *A. hyans*, *Solander*, is still living in the China seas, and fossil in the sub-Apennine tertiary of Piedmont. The ear-shells, species of *Haliotis*, are largely used for ornament and inlaying. When polished, they present varied and beautiful tints, with mother-of-pearl lustre. Cone-shells are also ornamental, as also are species of *Tellina*, *Murex*, and *Buccinum*.

The money cowrie, *Cypræa moneta*, of eastern seas, is used as small change throughout British India, and on the east coast of tropical Africa. It is also largely utilized in the ornamentation of horse and elephant trappings. *C. annulus* is used by the Asiatic islanders to adorn their dress, to weight their fishing-lines, and for barter. The smaller cypræa are made into clasps, buttons, earrings, bracelets, etc. The larger species were consecrated by the Greeks at Cnidos in the temple of Venus. At the present day Muhammadans of India suffering from guinea-worm make as a charm a string of human hair, to which they attach the eye of a peacock's feather, a piece of the root of *Amomum zerumbet*, and a cowrie. The cypræa, cones, olives, and ovulus are called love-shells.

Many species of *Purpura* secrete a fluid which gives a dull crimson dye; it may be obtained by pressing on the operculum.

Murex brandaris and *M. trunculus* are supposed to be the species of the Gasteropoda from which the Tyrian purple dye was obtained, but *Purpura patula* and others have also been indicated. The *Ianthina* also yields a colour.

The calcareous internal shell (*Sepiostaire*) of the *Sepiida* is the cuttle-bone in use by painters pounce, also in casting counterfeits. It was

formerly used in medicine as an antacid. That of a Chinese species of *sepia* attains 1½ feet in length.

Potamides telescopium (*Terebralia telescopium*) is so abundant near Calcutta as to be made into lime after exposure to the sun to kill the animals. The dead and living shells of species of the *Conchiferæ* are largely converted into lime at Madras, for the beautiful plaster called *chunam*.

The great *Tridacna gigas* of the Indian Ocean, China seas, and Pacific is a marvel to behold. A pair of valves may weigh 500 lbs., and the animal, about 20 lbs. in weight, is good to eat. Some Christian churches, as in St. Sulpice in Paris, use them as benitiers. If a man were to put his hand inside and the animal shut its valves, he would be unable to withdraw it.

The chank-shell of the Indian Ocean and Bay of Bengal, *Turbinella pyrum*, long the war trumpet of the ancient Hindu races, is still represented in the hand of their deity Vishnu and other of their gods, and it is used as a trumpet in the Hindu temples and in their funeral processions. The Australasian and Polynesian islanders utilize the *Triton tritonis* similarly. The *Buccinum* whelk, employed similarly, has its Latin name from *Buccina*, a trumpet or triton's shell. At Dacca, in Bengal, chanks are cut into necklaces, bracelets, armlets, and anklets, often of several hundred rupees value. Veneration is paid all over India to the large chanks, but especially those with the spiral line and mouth turned to the left. Chanks are used for beeting fine cloths; also as oil lamps in Hindu temples. In some years, above four millions of chank-shells are obtained in the Gulf of Manar, of the value of £10,000.

Some shells are frequently found reversed, among others, *Pyrula perversa*, many species of pupa, and the entire genera *clausilia*, *physa*, and *triphoria*; also the whelk and the garden snail are sometimes reversed, and *Bulimus citrinus* is as often sinistral as dextral.

Injurious.—There are several boring-shells; the ship-worm or teredo and some allied genera perforate timber, whilst the pholas bores into stones, chalk, clay. A piece of serpentine found on the Madras beach was bored with the pholas. The pholas shell is rough like a file. Other boring shells are *lithodomus*, *gastrochæna*, *saxicava*, and *ungulina*.

The *Teredo navalis* is ordinarily a foot long, sometimes 2½ feet. It destroys soft wood rapidly, and teak and oak do not escape.

Teredo corniformis, *Lam.*, is found burrowing in the husks of cocoanuts and other woody fruits floating in tropical seas.

The bivalves obtain their food by filtering water through their gills. They do not feed upon prey caught between their valves. Whatever particles the current brings are collected on the surface of the breathing organ and conveyed to the mouth. It is in this manner that they help to remove the impurities of turbid water.

Some of the gasteropoda attach themselves by glutinous threads; *litiopa* and *rissoa parva* anchor themselves to seaweeds, and *cerithidea* and Indian land-snail, *Cyclostoma suspensum*, suspend themselves. The mussel, pearl oyster, and other of the bivalves habitually spin a byssus, by which they attach themselves to objects. This they can detach and renew, and the mussel is essentially

migratory. The byssus of the pinna of the Mediterranean attains to 1½ feet in length, and at Palermo has been woven into gloves and stockings as a fancy work.

The injury caused by the teredo has been noticed above. Nearly all the land molluscs are vegetable feeders. They commit great ravages on the crops of the farmers, particularly on the pea tribe and cabbage tribe; but they hold white mustard in abhorrence, and they fast or shift their quarters while that crop is on the ground. Snails are destroyed by salt, but dilute lime-water and very weak alkaline solutions are still more fatal to them. Slugs feed chiefly on decaying vegetable and animal matter. One of them, the *Limax noctilucus*, *Fer.*, of Teneriffe, has a luminous pore in the posterior border of the mantle.

The mouth of the cephalopoda has two strong horny mandibles, something like the beak of a parrot, and it is surrounded by long fleshy arms, called tentacles, provided with numerous suckers, by means of which the animal grasps tightly whatever comes in its way. In some of the cephalopods the tentacles are long and powerful. Banks and Solander, in Cook's first voyage, met with a dead cephalopod in the Pacific, which was estimated to have been 6 feet long when perfect. It was the *Enoploteuthis unguiculata*; an arm of it is in the London College of Surgeons Museum.

Some species of *liligo* or pen-fish have been seen to leap out of the sea like the flying fish.

Fossils.—The window-shell, *Placuna placenta*, is at present living in the China seas, but is found fossil in abundance all round the coasts of India, from Sind to Singapore, and in the Peninsula of India and in China is largely used as a substitute for window glass. (Of the genera and species of shells discovered in the black clay underlying Madras, the chief are:—

<i>Rotella</i> .	<i>A. granosa</i> .	<i>Cardita</i> .
<i>Ranella tuberculata</i> .	<i>Anomia</i> .	<i>Placuna</i> .
<i>Cerithium microp- tera</i> .	<i>Natica helvacea</i> .	<i>Venus</i> .
<i>O. palustre</i> .	<i>N. maculosa</i> .	<i>Tapes ramosa</i> .
<i>C. telescopium</i> .	<i>N. mamilla</i> .	<i>Donax scortum</i> .
<i>Turritella</i> .	<i>Purpura carinifera</i> .	<i>Mastra</i> .
<i>Eburna spirata</i> .	<i>Olivia utriculus</i> .	<i>Meroe</i> .
<i>Bullia vittata</i> .	<i>O. irisana</i> .	<i>Cytherea</i> .
<i>Ampullaria globosa</i> .	<i>Nassa crenulata</i> .	<i>Sanguinolaria</i>
<i>Solarium</i> .	<i>N. clathrata</i> .	<i>diplos</i> .
<i>Area disparilis</i> .	<i>N. Jacksonianum</i> .	<i>Tellina</i> .
	<i>N. thirsites</i> .	<i>Nucula</i> .
	<i>Ostrea</i> .	<i>Pallastrea</i> .
	<i>Artemis</i> .	<i>Balanus</i> .

The *Pecten Jacobaeus* or St. James' shell was worn by the former pilgrims to the Holy Land, and became the badge of several orders of knighthood.

Amussium Japonicum is a large scallop of Japan. The Japanese call it *Tsuki-hi-kai*, and the sun and moon shell, from its presenting a yellow disc on one side and a white one on the other.

The genus *Pecten* or scallop shell possesses greater power of locomotion than most bivalves. The movements of the lima or file shell, when in the water, are graceful, the two valves being used as fins, by means of which it swims with considerable rapidity; the shell is less curved than the scallop, and generally white; the valves do not entirely close.

Living.—The following are genera of the salt-water mollusca living in all the eastern seas:—

<i>acmea</i> .	<i>isocardia</i> .	<i>plicatula</i> .
<i>anatina</i> .	<i>jouannetia</i> .	<i>psammobia</i> .
<i>anatinella</i> .	<i>limax</i> .	<i>pteroceas</i> .
<i>ancillaria</i> .	<i>limopsis</i> .	<i>purpura</i> .
<i>anomia</i> .	<i>linteria</i> .	<i>pyramidella</i> .
<i>artemis</i> .	<i>liotia</i> .	<i>pyrula</i> .
<i>aspergillum</i> .	<i>littorina</i> .	<i>pythina</i> .
<i>bankivia</i> .	<i>lucina</i> .	<i>quoyia</i> .
<i>broderipia</i> .	<i>lutraria</i> .	<i>radius</i> .
<i>buccinum</i> .	<i>macroschisma</i> .	<i>ranella</i> .
<i>bulia</i> .	<i>mactra</i> .	<i>ricinula</i> .
<i>bullia</i> .	<i>magilus</i> .	<i>rimella</i> .
<i>cancellaria</i> .	<i>malleus</i> .	<i>rimula</i> .
<i>cardilia</i> .	<i>mangelia</i> .	<i>ringicula</i> .
<i>cardita</i> .	<i>margarita</i> .	<i>risella</i> .
<i>cardium</i> .	<i>martesia</i> .	<i>rostellaria</i> .
<i>cassia</i> .	<i>meleagrina</i> .	<i>rotella</i> .
<i>cerithium</i> .	<i>melo</i> .	<i>sanguinolaria</i> .
<i>chaena</i> .	<i>meroe</i> .	<i>saxidomus</i> .
<i>chama</i> .	<i>mesodema</i> .	<i>scalaria</i> .
<i>chamostrea</i> .	<i>mitra</i> .	<i>scutellina</i> .
<i>circe</i> .	<i>monodonta</i> .	<i>semele</i> .
<i>cithara</i> .	<i>monotypgia</i> .	<i>sepi</i> .
<i>clavella</i> .	<i>murex</i> .	<i>sepiola</i> .
<i>clavigella</i> .	<i>mysidora</i> .	<i>septifer</i> .
<i>clementia</i> .	<i>myochama</i> .	<i>scapha</i> .
<i>columbella</i> .	<i>mytilus</i> .	<i>sigaretus</i> .
<i>conus</i> .	<i>natica</i> .	<i>siliquaria</i> .
<i>corbula</i> .	<i>nautilus</i> .	<i>siphonaria</i> .
<i>crassateila</i> .	<i>nerita</i> .	<i>solecurtus</i> .
<i>crenella</i> .	<i>neritopsis</i> .	<i>solen</i> .
<i>crepidula</i> .	<i>nucula</i> .	<i>solenella</i> .
<i>cuculæa</i> .	<i>octopus</i> .	<i>spirula</i> .
<i>cultellus</i> .	<i>odostomia</i> .	<i>spondylus</i> .
<i>cyclena</i> .	<i>oliva</i> .	<i>stomatella</i> .
<i>cylindra</i> .	<i>onychoteuthis</i> .	<i>stomata</i> .
<i>cyllene</i> .	<i>ovulum</i> .	<i>strombus</i> .
<i>cypræa</i> .	<i>paludina</i> .	<i>struthiolaria</i> .
<i>cypricardia</i> .	<i>pandora</i> .	<i>syndosinya</i> .
<i>cytherea</i> .	<i>panopæa</i> .	<i>tapes</i> .
<i>delphinula</i> .	<i>parmophorus</i> .	<i>tectarius</i> .
<i>dentalium</i> .	<i>patella</i> .	<i>tellina</i> .
<i>dipodonta</i> .	<i>pecten</i> .	<i>terebra</i> .
<i>dolabella</i> .	<i>pectunculus</i> .	<i>tebratella</i> .
<i>dolium</i> .	<i>pedum</i> .	<i>tebratulina</i> .
<i>donax</i> .	<i>perna</i> .	<i>tricotropis</i> .
<i>eburna</i> .	<i>peronia</i> .	<i>tridacna</i> .
<i>clenchus</i> .	<i>petricola</i> .	<i>trigonia</i> .
<i>fasciolaria</i> .	<i>phasianella</i> .	<i>triphoris</i> .
<i>fissurella</i> .	<i>phorus</i> .	<i>triton</i> .
<i>fusus</i> .	<i>phos</i> .	<i>trochus</i> .
<i>gena</i> .	<i>pileopsis</i> .	<i>turbinella</i> .
<i>haliotis</i> .	<i>pilidium</i> .	<i>turritella</i> .
<i>harpa</i> .	<i>pinnoctopus</i> .	<i>velutina</i> .
<i>hemicardium</i> .	<i>pisania</i> .	<i>venerupis</i> .
<i>hemipecten</i> .	<i>placuna</i> .	<i>Venus</i> .
<i>hippopus</i> .	<i>placunomia</i> .	<i>verticordia</i> .
<i>imbricaria</i> .	<i>plana xis</i> .	<i>voluta</i> .
<i>imperator</i> .	<i>pleurotoma</i> .	<i>vulsella</i> .

The following are the genera of the land and fresh-water molluscs of Eastern and Southern Asia; a few of them are peculiar to the region:—

<i>achatina</i> .	<i>clausilia</i> .	<i>leptopoma</i> .
<i>acicula</i> .	<i>conovulus</i> .	<i>limax</i> .
<i>alasmodon</i> .	<i>corbicula</i> .	<i>limæa</i> .
<i>allisa</i> .	<i>cyclos</i> .	<i>megalomastoma</i> .
<i>amnicola</i> .	<i>cyclophorus</i> .	<i>meghimatium</i> .
<i>amphibola</i> .	<i>cyclostoma</i> .	<i>melampus</i> .
<i>ampullaria</i> .	<i>cyclotus</i> .	<i>melanatria</i> .
<i>anechus</i> .	<i>cyrena</i> .	<i>melania</i> .
<i>anodon</i> .	<i>diplommatina</i> .	<i>negathma</i> .
<i>area</i> .	<i>electrina</i> .	<i>nanina</i> .
<i>ariophanta</i> .	<i>Gibbus</i> .	<i>navicella</i> .
<i>assiminea</i> .	<i>glaucomya</i> .	<i>nematura</i> .
<i>antelopoma</i> .	<i>heliciaion</i> .	<i>neritina</i> .
<i>auricula</i> .	<i>helicina</i> .	<i>novaculina</i> .
<i>balca</i> .	<i>helix</i> .	<i>omphalotropis</i> .
<i>bithynia</i> .	<i>hemimitra</i> .	<i>oncidium</i> .
<i>bulimulus</i> .	<i>hypostoma</i> .	<i>otopoma</i> .
<i>bulimus</i> .	<i>inciliaria</i> .	<i>paludina</i> .
<i>camptoceras</i> .	<i>janella</i> .	<i>paludomus</i> .
<i>cataulus</i> .	<i>lampania</i> .	<i>parmacella</i> .
<i>cerithidium</i> .	<i>latia</i> .	<i>paxillus</i> .

peronia.	potanides.	symphynota.
pholas.	pteroeyelos.	tanalia.
physa.	pupa.	terebralia.
pirenia.	pyrazus.	tornatellina.
pisidium.	quoyia.	unio.
planorbis.	realia.	vaginulus.
platyoloster.	streptaxia.	vitrina.
polydonta.	succinea.	

—Balfour's Cat. Mad. Mus.; Phipson's Minute Life; Dr. Traill in Journ. Ind. Archip.; Woodward's Manual, Mollusca.

MOLOSSUS TIBETANUS, the Tibetan mastiffs, fierce-looking animals.

MOLUCCAS, or Spice Islands, are terms often applied to all the groups of islands lying between Celebes and New Guinea, although politically this name is restricted to the Dutch Spice Islands. The groups are under three Dutch Residencies, viz.—1. The Ternate Islands, including the Moluccas proper, comprising Ternate, Gilolo, Batchian, Obi, Mortui, and the Kaiva Islands; 2. The Amboyna Islands, including Amboyna, Ceram, Bouru, Goram, Amblau, and some smaller islands; and 3. The Banda Islands, 10 in number, including Great Banda or Lonthoir, Banda Neira, Pulo Run, Pulo Ai, Gunong Api, Rosengyn, Kapal, Pisang Sjetan, and Vroumen. Rearrangements of the groups are made from time to time to meet altering conditions of the administration. The islands are mostly small, volcanic, unproductive in grain, but fertile in fine spices. Ternate, Tidore, Motir, and Makian are only trachytic cones standing on the same great fissure of the earth. The clove tree grows spontaneously on Ternate, Tidore, Motir, Makian, and Bachian. It begins to bear at 15 years, and is in full perfection at 20, and the average yield is 5 lbs. Ternate is the most northerly of a chain of islands off the W. coast of Gilolo, in lat. 0° 48' N., and long. 127° 16' E. Ternate is merely a high volcano, with its base beneath the ocean. Its circumference around its shore is 6 miles, and its height is 5480 feet. Severe and destructive eruptions took place in 1608, 1635, 1653, 1673, and next on the 26th February 1838, then on the 25th March 1839, and on 2d February 1840. In that of 1673 a considerable quantity of ashes was carried to Amboyna. In that of 2d February 1840, for 15 hours the solid ground rolled like the sea; but the heaviest ground wave was at 10 A.M. of the 15th February, and the people then took to their boats. In this interval were great eruptions of ashes and hot stones, which fell like hail. Lava poured from the crater into the sea. For ten days clouds of black smoke poured out. About midnight of the 14th the shocks were more violent, and before half-past three A.M. every house was levelled. Fissures formed in the earth, out of which hot water rose for a moment, and then the earth closed again to re-open at another place. The lower part of the mountain behind the town is covered with fruit trees,—the dorian and mango, lansat, mangosteen. When Drake visited Ternate in A.D. 1579, the Portuguese had been driven out of the island by the sultan. It was taken by the Dutch in 1607. The people are of three well-marked races,—the Ternate Malay, the Orang Sirani, and the Dutch. The first are the descendants of the intruding Malay, who drove out the indigenes (who were no doubt the same as those of the adjacent mainland of Gilolo), and established a monarchy. The Sirani are the

Christian descendants of Portuguese. Ternate town is at the foot of the mountains.

Makian Island is 50 miles from Ternate, and consists of a single grand volcano. In 1646 there was a violent eruption, which blew up the whole top of the mountain, leaving a truncated jagged summit, and vast gloomy crater valley. It was said to have been as lofty as Tidore before this calamity. On the 29th December 1862 another eruption of the vast mountain took place, in which all the villages and crops were destroyed, and many of the inhabitants killed. The sand and ashes fell so far that crops at Ternate were destroyed, and it was so dark at Ternate that lamps had to be lighted at noon.

Gilolo north end is in about lat. 2° 23' N. It has a long mountainous coast, high bold land, with three remarkable peaks. The northern peninsula of Gilolo and the great island of Ceram are inhabited by the Alfura.

The *Galela* race are natives of a district in the extreme north of Gilolo, but they are great wanderers over the archipelago. They are remarkably energetic and industrious, of light complexion, tall, and with Papuan features, coming near to the drawings and descriptions of the true Polynesians of Tahiti and Owyhee. They build large and roomy prahus with outriggers, and settle on any coast or island they take a fancy for. They are an industrious and enterprising race; cultivating rice and vegetables, and indefatigable in their search after game, fish, trepang, pearls, and tortoise-shell. Professor Bikmore, however, states that they are strictly of the Malay type, and have not the dark skin and frizzly hair of the Alfura of Ceram and Buru, though representatives of that people may exist in Gilolo.

Tidore, on the west coast of Gilolo, is about 6 miles long. A mountain on the N.E. end of the island is in lat. 0° 40' N., and long. 127° 22' 30" E. Tidore is over 4000 feet high. Tidore, like Ternate,—from which it is two or three leagues distant,—is formed in its southern part of lofty hills. The soil is of great fecundity, and plentifully watered by streams from the peaks. The people have an aptitude for agricultural occupation.

Batchian is about 52 miles long by 20, and is separated from Gilolo only by a narrow strait. It is the largest of the chaplet of isles surrounding Gilolo, and is as fertile as Tidore, but with a sparse, poor, indolent population. The soil is volcanic, and below the active crater springs of sulphureous water break from the ground in the most picturesque situations. Here, as in Amboyna, the Christian converts are the most inert. The situation and aspect of the island are beautiful. Monkeys are to be found nowhere else in the Molucca Archipelago.

Amboyna is about 32 miles long by 10 in breadth. Amboyna and Banda are supposed to have been discovered by Antonio d'Abreu, a Portuguese captain, who left Malacca in 1511; but Ludovica Barthema (Vartoma) of Bologna claims to have been there in 1506. The Amboynese are of a middling height, and well formed. They make good mounted and foot soldiers, are gentle, brave, very sober, and easily managed. A considerable number have embraced Christianity.

Ceram.—The cluster of islets lying at the S.E. extremity of the island of Seran as it is called by the natives, or Ceram as it is laid down in the maps, are situated in lat. $3^{\circ} 55' S.$, and in long. $133^{\circ} E.$ Ceram is the second in size of the Moluccas, having an estimated area of about 10,000 square miles. It is 162 miles long, but its greatest breadth is only 42 miles. The island is one long mountain chain that sets off transverse spurs, and some of the peaks are 5000 or 6000 feet in height, sending down innumerable streams to the sea. The vegetation is everywhere luxuriant, and the trees gigantic. The several islets which compose the Ceram group produce fruit trees in considerable abundance,—the dorian, mangosteen, the wild nutmeg, and the cocoanut and sago palm, the latter supplying to the natives the chief article of subsistence. Cloves and nutmegs grow wild. The Alfura of Papuan race are the predominant type in the island of Ceram. The people of Ceram approach nearer to the Papuan type than those of Gilolo. They are darker in colour, and a number of them have the frizzly Papuan hair; their features are harsh and prominent, and the women are far less engaging than those of the Malay race. The Papua or Alfura man of Ceram gathers his frizzly hair into a flat circular knot over the left temple, and places cylinders of wood, as thick as one's fingers and coloured red at the ends, in the lobes of the ears. They are very nearly in a state of nature, and go almost naked; but armlets and anklets of woven grass or of silver, with necklaces of beads or small fruit, complete their attire. The women have similar ornaments, but wear their hair loose. Ceram has on its western side the three islands, Bonoa, Kelang, and Manipa. The commercial products from these islands consist of tortoise-shell, mother-o'-pearl shell, beche-de-mer, wild cinnamon, wild nutmegs, and birds of paradise. The Greater and the Lesser Keffing, however, S.E. of Ceram, are well peopled by Muhammadan Malays, and sprinkled with houses of traders engaged in traffic with the Nassau, the Ki, and the Tenimber Isles, where they sell the produce of their fishery, tortoise and trepang. The isles are low, but remarkably picturesque.

Bouro Island is one of the Moluccas, and is about 200 miles in circumference. The island is high, and has a semicircular mountain on its N.W. part. Bouro has two races; the larger number are Malays of the Celebes type, often exactly similar to the Tomore people of E. Celebes, who are settled in Batchian, but the other race resemble the Alfura of Ceram. The bulk of the inhabitants are a comparatively fair people, very closely resembling the native of Amboyna.

Banda belongs to a group of ten small but high volcanic islands, situated between lat. $3^{\circ} 50'$ and $4^{\circ} 40' S.$ The largest is Lontar or Great Banda,—it is crescent-shaped; and Pulo Pisang, Banana Island, and Pulo Kapal, Ship Island, lie in the hollow of the crescent, and form the arc of a circle. Within this arc are three other islands, the highest of which is Gunong Api, next Banda, Neira, N.E. of which is Pulo Krakka or Old Woman's Island. The nutmeg, the excellent maritime position, the superb roadstead, and the fertile soil of Banda, render it conspicuous among the Spice Islands; but, unlike Amboyna, it is unhealthy, and exposed to constant danger from

the Gunong Api volcano, which has many times burst in eruption, devastating the neighbouring region, and blasting it with showers of scorching ashes. The base of this volcano, called by the French the Grenade of Banda, occupies the whole surface of the islet. Its height is about 2000 feet, covered with magnificent vegetation, commencing at the line where the waves cease to beat, and continuing upwards to the point where the lava ceases to flow. The isle is inhabited only by a few emigrants from Timor. For nearly 100 years the Portuguese monopolized the trade. In 1609 the Dutch attempted to take these islands, but the war lasted 18 years, and the natives fled to the neighbouring islands. The Dutch had to cultivate the islands with slaves, and when slavery was abolished, with convicts. The water is so transparent that living corals and minute objects are seen below. Almost all Banda Island is covered with nutmeg trees, grown under the shade of the Canarium commune. About three-fourths of the inhabitants are mixed races,—Malay, Papuan, Arab, Portuguese, and Dutch. When first discovered by Europeans, the inhabitants had made considerable advance in civilisation, but one still much inferior to that of the Malays and Javanese.

Rosinguin, near Banda, was almost abandoned after the extirpation of its spice trees, its people emigrating to the neighbouring islands in search of a livelihood. The people are of the Malayan race, short, squat, and darker in complexion than the Malays or Javanese.

Land mammals are few in number. The only one of the quadrumana is *Cynopithecus nigrescens*, at Batchian; the *Viverra zangalunga*, *Rusa hippelaphus*, var. *babirusa*, *Sorex myosurus*; the flying opossum, *Belides ariel*, a beautiful little marsupial animal like a flying squirrel; and three species of *Cuscus*, opossum-like animals, with long prehensile tails, small heads, large eyes, with a covering of woolly fur; their flesh is everywhere eaten. There are, however, 265 species of birds known. Amongst them the large red-crested cockatoo, 2 species of the *Eclectus* parrot, and 5 of the beautiful crimson lorics, 21 species of pigeons, 16 species of kingfishers, and the mound-making megapodii, for *M. Wallacei* inhabits Gilolo, Ternate, and Bouro.

The insects are very numerous and very beautiful,—*Pieridæ*, *Danaidæ*, *Ornithoptera priamus*, *helenæ*, and *remus*, *Papilio ulysses*, *deiphobus*, and *gambrius*; *Iphia leucippe*, one of the *Pieridæ*; also *Hestra* idea of the *Danaidæ*; two large *Nymphalidæ*, *Diadema pandarus* and *Charaxus euryalus*; and amongst the beetles *Euchirus longimanus* and *Xenocerus semiluctuosus*.—*Bikmore*; *Crawford*; *Hogendorp*; *Horsburgh*; *Keppel*; *Kolff*; *Logan*; *St. John*; *Tenminck*; *Wallace*.

MOLUNGHI. BENG., URYA. A salt manufacturer.

MOMBAZA, Mombassa, or Mombas, a small island on the E. coast of Africa. Castle in lat. $4^{\circ} 4' S.$, and long. $39^{\circ} 43' 9'' E.$ The Indian colony here comprises Bohra, Sindi, Khojah, and Hindus. Of these, the Bohra are the most numerous, as well as the longest established; they came from Surat and Cambay. The Sindi, who arrived much later, numbered 30 houses in 1873, and holding, as they do, the Sunni doctrines, are stated to have fewer sympathies with the British Government than either of the other

Indian Muslim sects. The Hindus are the least numerous of the Mombassa traders, and while scattered everywhere at the ports, are only largely represented, like the rest of the Indian races, at Zanzibar alone. The trade of Mombassa is increasing, and none but free men of the place are engaged on the caravans sent into the interior in quest of ivory and other produce. The annual export of ivory, much of which is shipped direct to Bombay, does not exceed 70,000 dollars. The tax levied by the Sultan on this article amounts at Mombassa to 3 dollars per 35 lbs. Copal pays the heavy tax of 15 per cent. on arrival at Zanzibar. Rhinoceros horns and wax pay each 1 dollar per 35 lbs. Only grain and oil-seeds are allowed to pass free.

MOMIAI. PERS.

Hajar-ul-musa, . . . ARAB. | Shih ta'ih, . . . CHIN.
Shih-lan-yu, . . . CHIN.

This name is applied in Persia and Central Asia to several forms of asphalt, mineral pitch, Jew's pitch, maltha. Near the Straits of Tang-i-Teko, from whence the Kurdistan river issues into the plain, and not far from the village of Peshker, is a fissure high up in the mountains, out of which runs a black substance resembling pitch, which is gathered by the natives, and is much esteemed in Persia for its healing qualities, especially for bruises and fractures. It is called Mumia or Mumia-i-Nai, from the village Nai-deh at its bottom. Shiraz sustained the shock of an earthquake about the year 1810, when this fissure was enlarged, and the momiai has since flowed out more copiously. The excessive esteem in which it was held by the Persians may be judged by mentioning that Ali Murad Khan sent about an ounce of momiai enclosed in a gold box to the empress of Russia. It is alluded to also in the *Ajaib-ul-Makhlukat* and the *Jahan Numa*. Baron de Bode surmises that this is the *Sarcocolla* of Dioscorides, iii. p. 99, which is described as obtained from Persia, and to possess wonderfully healing properties. Sir William Ouseley states that the momiai of Darabjird is alone reckoned genuine. The Persian momiai is deemed a certain specific in fractured bones. It is a solid, hard, heavy, black, glistening mass, without any particular odour. In all eastern bazars may be found, under the name of Persian mumiai, a compound resembling the genuine in appearance. According to Dr. Seligmann, Mumi in Persia signifies wax; Iai or Ayu is the name of the village in the vicinity of which the spring of water containing mumiai or mumiajin is found.

MOMIN, a town 90 miles from Bamo. It seems to be under the Pan-thay Muhammadans. From Momin to Bamo the road runs through Shan and Chinese territory.

MOMIN. ARAB. A Muhammadan believer. In Berar, weavers and sellers of native cloths, the saree, susi, rarbau, khodi. They profess Muhammadanism. Amir-ul-Mominin, commander of the faithful, a title of the early khalifs.

MOMINABAD, also known as Amba Jogi, a walled town in the Hyderabad territory. It has some Brahmanical and Jaina caves. It is a military cantonment of the Hyderabad contingent.—*Ferg. and Burg.* p. 425.

MOMIRA, or Manuran, or Mamiran, small cylindrical roots, brown externally, with a yellow medullium; very much valued by natives as an

astrigent application to the eyes in chronic ophthalmia. One kind, Momira Chini, is said to come from Yarkand. The *Makhsan-ul-Adwiya* says there are three kinds,—Hindi, Khorasani, and Chini. Hindi is blackish-yellow in colour; Chini is dull yellow; Khorasani is dark and greenish.—*Powell*.

MOMORDICA, a genus of plants belonging to the natural order Cucurbitaceae. The best known species are *M. balsamina*, *M. charantia*, *M. charantia*, var. *muricata*, *M. Cochinchinensis*, *M. dioeca*, *M. ovifera*.

MOMORDICA BALSAMINA. Linn.

Mokah, ARAB. | Balsam apple, . . . ENG.
Ku-kwa, CHIN. | Karelo-jungro, . . . SIND.
Lai-pu-tan, "

This bears a bitter oblong fruit. When ripe, of a beautiful red colour, and eventually bursts. When green, it is carefully washed in warm water, and cooked and eaten by the Chinese, but has purgative properties. In Sind used in pickles.—*Smith, Ch. M. M.; Murray*.

MOMORDICA CHARANTIA. Linn. Var. *M. muricata*, Willde., Roxb., W. and A.

Kyet-hen-kha, . . . BURM. | Karawila, . . . SINGH.
Karela, . . . HIND., PERS. | Podalang kai, Pawai, TAM.
Pandi pavel, . . . MALAL. | Kakara, . . . TEL.

This vegetable is very commonly cultivated in India and Burma at the commencement of the rains. The fruit is from 10 to 14 inches long, and from 2 to 4 in diameter; the edges are curiously notched and ridged; the flavour is bitter. When ripe, it is of a beautiful deep red and yellow. The natives fry and eat them, but they are principally used in curries. They require to be soaked in salt and water before dressing.

A variety, with oblong fruit,

Lamba karela, . . . DUKH. | Comboo pagulkai, . . TAM.
Pandy pavel, HORT., MAL. | Commoo kakakaia, . . TEL.
Deerga karavulli, SANSK.

is a very valuable, pleasant-tasted, and wholesome vegetable, though perhaps a little too bitter. It is about 4 or 5 inches long, and of a wrinkled and scabrous appearance outside. The natives sometimes make curry of it, but prefer it fried. In some parts of the country the Tamil name is pronounced Kombu-pawa-kai. Another fruit, called Nerree payay-kai, belonging to the Cucurbitaceae, is sold in the bazars.—*Roxb.; Voigt; Jaffrey*.

MOMORDICA COCHIN-CHINENSIS. Spr.

Muricia Cochinchinensis, M. mixta, Roxb.
Lour. | Gol-kakra, . . . BENG.

This is grown in Bengal. Has large cream-coloured flowers. The fruit is large, red, and thorny, contains a yellow insipid pulp, is totally inert as a medicine, and is indeed occasionally used for food in Bengal.—*O'Sh.*

MOMORDICA DIOECA. Roxb.

Sa-byet, . . . BURM. | Palu paghel, . . . TAM.
Dhar-karela, . . . HIND. | Potu-agakara, . . . TEL.
Kirara, . . . RAVI. | Potu kakara, . . . "
Tumba karawilla, SINGH.

A small round-fruited species of *Momordica*, much cultivated by the natives for their curries. The powder or the infusion of the fruit, when introduced into the nostrils, produces a powerful errhine effect.

MOMUND, an Afghan tribe, partly in British territory, partly semi-independent. The Upper or Hill Momund country stretches from the south-western districts of Swat to the hills north of the

Khaibar, and includes both banks of the river Kabul, Lalpura, the capital town, being situated on its left bank, just beyond the north-western extremity of the Khaibar. The Doaba between the Kabul and Lundi rivers overlooks British territory, and at one point is only 25 miles distant from Peshawur. The Lower Momunds inhabit lands within the British frontier, although doubtless of the same family originally. Four clans of this tribe at the least have come into collision with the British Government. These are the Pindi Ali Momunds, whose country extends westwards from the right bank of the Lundi, and in naturally a very strong position; the Alamzai Momunds, to the south of the former, who are also in possession of estates in British Doaba, which are let out for the most part to tenants; the Lalpura Momunds on the Kabul river; and the Michni Momunds, a portion of whose territory is attached to the Peshawur district. They hold a jaghir at the junction of the Kabul and Lundi rivers, a fertile tract, partly cultivated by themselves, and partly by members of various tribes on the plains, who are tenants. This jaghir was once more extensive than it is now, but was considerably diminished by reason of their murder of Lieutenant Bullen, of the Engineers, at the end of 1852. That officer had, for the sake of amusement, ridden to a very short distance into the lower hills among their lands, when he was seized and killed, and his head was sent as a trophy to Lalpura. Also they withheld the payment of two years' tribute. At last retribution was dealt out. In the autumn of 1854 a force was sent against them, which destroyed some of their villages, and brought the refractory Michnis to order. They have a few large villages, such as Lalpura, Kaumeh, and Goshitch, but the people generally live in very small hamlets. They originally acquired their present possession by conquest from the Delazaks on occasion of the Afghans from the west invading this part of the country. See Mohmund.

MON is the native name of the people of Pegu. The Burmese call them Talaing. The Siamese appellation is Ming-mon. Part of this population dwell on the delta of the Irawadi, in Moulmein, Amherst, and Martaban. Their alphabet, like that of the Thai and Burmese, is of Indian origin, being essentially that of the Pali form of speech, and, like all alphabets of this kind, it embodies a Buddhist literature. The Mon language is quite unintelligible to a Burmese or Siamese. The Mon long successfully contested with the Burmans the sway over the basin of the Irawadi. They were annexed to Burma in the middle of the 16th century, but again threw off the yoke in the beginning of the 18th century, and subjugated all Burma. Their range embraces the delta of the Sa-luen, where Moutama or Martaban was their chief port. They long preceded the Siamese in the Tenasserim Provinces, and the languages of the Siam and Binnua of the Malay Peninsula retain deep traces of their ancient influence to the south. A colony is also found in the basin of the Menam. Before the great southern movement of the Lau, the Mon appear to have occupied that basin also, and to have marched and intermixed with the closely-allied Cambodians of the Lower Mei-kong. They seem to have been at one time the chief traders eastward of the Bay of Bengal. No trace of the

Mon is now left along the Yuma range,—tribes of the Karen family being the exclusive holders of its inner valleys. Some of the very imperfectly-described tribes on the eastern side of the Irawadi, to the north of the Karen-ni, viz. the Za-baing, Ka-Khyen, etc., may belong to the older immigration. But the Mon is the only remnant within the ancient Karen province, and its earlier preservation is doubtless owing to the same causes, its arts, civilisation, and wealth, which have enabled it to hold its own against the Tibeto-Burman horde of the Irawadi. The Mon or Teling language has the intonations characteristic of the Chinese family, but to a much less extent than the Chinese itself, the Tai, or the Karen. The roots are principally monosyllabic; but this language is remarkable for its numerous compound consonants. Like all other Indo-Chinese languages, grammatical distinctions are made by particles prefixed or suffixed. In its vocables, it is the most isolated language in Further India, but it has a radical affinity with the language of the Ho or Kol. This is the view of Mr. J. R. Logan as quoted by Colonel Phayre, in his paper on the History of the Burma race. He considers the radical identity of the relative pronouns, definitives, and numerals of the Kol with those of the Mon-Annam group as established. Both groups in their glossarial basis are branches of one formation much more akin to Tibetan-Burman than to Dravidian.—*Dalton, Ethnol. of Bengal*, p. 119.

MONAL, a pheasant of the Himalaya, *Lophophorus impeyanus*.

MONAS, a tributary to the Brahmaputra. It rises in the Himalaya range, in lat. 28° 20' N., and long. 91° 18' E.; runs S. 40 miles, S.W. 110 miles, S.W. into Brahmaputra. Length, 189 miles. It receives the Diunri, of greater length than itself. The Monas is the largest river of Bhutan, which state is almost drained by it.

MONASTERY.

Kyong, . . .	BURM.	Terah, . . .	JAP.
Ant'hol, . . .	HIND.	Wat, . . .	SIAM.
Akora, Mat'h, . . .	"	Muttam, . . .	TAM.

Monasticism is an essential feature in Buddhism. In the Brahmanical religion, it is only so far connected with the popular worship that several of the sects are ascetics, and the chiefs or gurus of most of the Hindu temples are also ascetical. Christianity also has several sects whose priests, as in the Romish persuasion, are monks. The Burmese monk is termed Phoungye. Their ranks comprise—(1) the Shin, a novice or postulant; (2) the Pyit-Shin or Pyin-Sin, a full member of the order; (3) the Sayah, always a Phoungye, the head of a kyong; (4) the Geing-oke, the provincial over the monasteries of a district; and (5) the Sadaw or royal teacher or vicar-general of the order, who manages the affairs of all Burma, British and Independent. The most learned and most famous Sadaw must go forth every morning to beg his daily food, even when tottering, old, and decrepit. In every monastery of Burma, the Kappes-dayaka has a stock of money, which is given in charity to the poor.

In Burma, the Shin or Shin-pyoo, probationer in a Buddhist monastery or kyong, is admitted by baptism, Shin-pyoo-thee, to become a believer, usually from 12 years of age. The head is shaved and washed, and the yellow robe assumed, some-

times only for 24 hours, others all Lent. Monks of Burma and Siam, as they go round every morning, with a begging-bowl strapped around the neck, accept meekly, without word of thanks or glance thrown to the right or left, the food poured in by the pious. About 8 in the morning, they set out in orderly procession in Indian file. On returning they present what they have received to the Buddha.

Lent is a periodical abstaining rite in the religions of Christians, Muhammadans, and Buddhists. With the first of these, the abstinence is only from certain diet articles, for a period of 40 days; Muhammadans, for a lunar month, call Ramadan or Ramzan, between sunrise and sundown, fast and are continent; but Burmese have a Lenten period of nearly three months' duration. See Myenino.

Literature.—The Burmese Buddhist's sacred book is the Beetaghat. The Wee nee contains the whole duty of the Burmese monk. The young Buddhists of Burma learn the Paycht gyee and the Payah Shekho, Pali sermons and forms of worship, also the Mingola Thoht, Buddhist Beatitudes. Later on they pore over the Abidhamma Konitgyan, the seven books of the most difficult parts of the Beetaghat, with the Thing-yoh and Thaddah. Their lay literature consists of beast tales, fables of animals, with the Nataka or drama, from Nata, a dancer, or the Pooay or Pwe, a dramatic performance. Amusement usually winds up with a dramatic performance, called a pwe or pooay.

Burmese Buddhists have ten commandments, five of them obligatory on all Buddhists at all times, viz. Do not take any life; nor steal; nor commit adultery; nor lie; nor drink intoxicating liquor. And five incumbent on laymen only on sacred days and Lent, viz. Do not eat after midday; not to sing, dance, or play on any musical instrument; not to use cosmetics, or colour the face; not to sit, stand, or sleep on platforms or elevated places not proper for them; and not to touch gold or silver.

Monks of Burma use rosaries of Canna Indica, which they believe sprang from Shin Gautama's blood. Hermits of Burma, called Ya-theht, are not numerous, though the cells in the rocks above Nyoung Oo near Pagahon, near Old Mandalay Hill, and at other parts of the Irawadi, continue to receive occupants.

In Burma, within the enclosing parawoon or wooden rail of the Burmese kyoung all is sacred, and the laity, when they enter, take off their shoes and carry them in their hands. This applies to the highest in the land; and when a prince or Min-gyee arrives on an elephant, he dismounts at the monastery gate, and enters reverently barefooted. Mandalay Hill is held sacred, and rescued fowls are sent to it. There are great turtle in a tank at the Arakan pagoda. They are held sacred, and are fed by the pious. In March 1879 the tank dried up, and many died before water could be brought from the river. The circumstance was supposed to be an indication of the displeasure of the Nat, at the shedding of the royal blood in February by king Thebaw.

The Thihadaw monastery is on a small island in the middle of the third and lowest defile of the Irawadi. Large numbers of half-tamed dog-fish are in the waters around the island, great five-foot-long, gape-mouthed creatures, which are fed

by the pious. All the monastic tanks of Burma have such fish, more or less tame. The Nga-dan or butter-fish at the Kyeiklat monastery are summoned by beating the bank and calling Tit, tit, tit, and fed by the Ya-han and young Ko-yin. The Nga-dan allow their heads to be stroked and to have gold-leaf affixed. There is a peak 3650 feet high, on the crest of the main dividing range between the rivers Tsit-toung and Salwin, in British Burma. Its most remarkable features are the numerous granitoid boulders scattered about the summit, some being balanced in a marvellous manner on the most prominent rocks. On the more striking of these, pagodas have been built, among which the Kyaik-hti-yo-ge-le and the Kyaik-hti-yo are the principal. The latter, about 15 feet high, is built on a huge egg-shaped boulder, perched on the apex of a shelving and tabular rock, which it actually overhangs by nearly one-half. Pious Buddhists believe that the pagoda is retained in its position solely by the power of the hair of Buddha or Gautama enshrined in it. This relic is fabled to have been given to a hermit living on the mountain by Buddha himself.

The gurus of most of the Hindu sects are monks, and several of the sects are ascetics, who recruit their numbers by adoption. The gurus or priors reside in the math or monasteries. They are not numerous with Hindus, and asceticism and monasticism among the Muhammadan sects is very rare.

Monasticism, among Christians, first took its rise in Egypt; and the Coptic monasteries of St. Anthony and St. Paul claim to be founded on the spots where the first hermits established their cells on the shores of the Red Sea. Next in point of antiquity are the monasteries of Nitria in the neighbourhood of the Natron lakes, which are situated in the desert to the N.W. of Cairo, on the western side of the Nile. Of these monasteries authentic accounts are extant, dated as far back as the middle of the second century, when Fronto retired to the valleys of the Natron lakes with 70 brethren in his company.

The Abba Ammon and the Abba Bischoi betook themselves to this desert in the beginning of the 4th century, the latter founding the monastery still called after his name, Isaiah or Esa, to which the Copts prefix the article B or P. St. Macarius first retired into the Thebaid A.D. 335, and about 373 established himself in a solitary cell on the borders of the Natron lakes. He died A.D. 394, after 60 years' residence in various deserts. Numerous anchorites followed his example. He was the founder of the monastic order which, as well as the monastery still existing on the site of his cell, was called after his name. After the time of Macarius the number of ascetic monks increased to a surprising amount. Rufinus, who visited them in the year 372, mentions 50 of their convents. Palladius, who was there in the year 387, reckons the devotees at 5000. St. Jerome also visited them, and their number seems to have been kept up without diminution for several centuries.—*Quarterly Review*.

MONEGAR, in the south of India, a superintendent or head of a village or temple, or subordinate revenue officer.—*Wilson*.

MONEGAR CHOULTRY, a charitable institution in Madras, comprising a poorhouse, a foundling hospital, an hospital for native sick, and a leper

hospital. It was founded in the early part of the 19th century by the E. I. Company, the nawab of the Carnatic, and the general public, and in 1808 Surgeon Underwood was the original founder of the infirmary. Since then, Mr. John de Monte, Lord William Bentinck, Arnachellum Chetty, the maharaja of Vizianagram, Gajapati Rao, Sir Albert David Sassoon, the rajahs of Pittapur and Colastry, have largely aided it. Lord Napier and Mr. R. Ellis subscribed for the erection of a school for the children of the paupers, foundlings, and of those in the neighbourhood. In 1856 the average cost of maintenance of each pauper was 1 anna $4\frac{3}{8}$ pice per diem; in 1863 the rate was 1 anna $5\frac{1}{2}$ pice in the idiot asylum, and a little higher in the hospital; in 1871 the cost in the pauper choultry was 1 anna 5 pice.

MONEY.

Naqd, Tankah,	ARAB.	Moneta, Danaro,	IT.
Monnaie,	FR.	Zar o-sim,	PERSS.
Geld,	GER.	Moneda,	PORT., SP.
Rupai, Paisa,	HIND.	Para, Akcha,	TURK.

The Greeks, the inventors of the use of money, were imbued with the only true theory as to its character of real merchandise, and in no one of the Greek writers of the autonomous period is there any trace of the theory which treats gold and silver coins merely as conventional signs of value, subject to the will of the sovereign or of the state. The Greek coinage was, as a rule, excellent. Its metal was pure, its weight exact, and its real value corresponded to its nominal value, except in the case of the small change, which was everywhere more or less fiduciary. All the members of the community exercised a constant supervision over the operations of the mint.

The magistrates to whom was confided the duty of supervising the currency at Athens, were three in number, two being annual, the third changed about every month. The signatures of all three upon the Athenian tetradrachms warranted the excellence of the coin. In some other cities the chief political magistrate signed the coins, as the Prytanis at Smyrna, the Archon at Taba in Caria, the priest of Actian Apollo at Leucas, etc. At Rome in republican times the regular magistrates appointed to look after the coinage were called *treasviri monetales*. They were not finally abolished until the time of Aurelian, although from the commencement of the empire only the copper money remained under their administration. In ancient as in mediæval times, *e.g.* Venice and Florence, republics were by the very principles of their constitution far better secured than monarchies against the adulteration of money. In the Hellenic world there is hardly any bad money to be found which does not bear the stamp of a king or a tyrant. The Flaminian law, passed when Hannibal was at the gates of Rome, was the first which gave to money a conventional value which it could not command as merchandise. This temporary measure, adopted in a time of pressure to recruit an exhausted treasury, was the fatal precedent upon which was based the false theory that a legislative decision was sufficient to fix the value of the metallic specie. This theory henceforth became one of the dogmas of the new aristocratic party, and against it the democrats protested in vain. Marius Gratidianus, in the eyes of this party, committed a heinous crime in assailing the right of the state to depreciate the

currency, and on this account Sulla visited him with cruel retribution.

The Cæsarcan despotism restored for a time the public credit by issuing good money; but Augustus and his successors had absolute control over the gold and silver coinage, and before many years adulteration commenced, and went on growing until the systematic alterations in the coinage by imperial orders produced such confusion as was scarcely equalled in the most disastrous years of the 14th century.

Ever since Alexander visited Western India, all dynasties have coined money as a royal right. But the current and convenient principal coin of the Malay and Philippine Archipelago has long been the hard Spanish dollar, the *peso duro* of the Spaniards; and that with globes and pillars, containing 3709 grains of pure silver, and worth in sterling money about 51.79 pence, has a universal preference. The British rupee and Dutch guilder are but of local currency there, and always more or less at a discount. The dollar, the Malays usually call a *real*, which is no doubt an abbreviation of the Spanish *real de a ocho*, or a piece-of-eight. The common name with the Javanese is *ring git*, which literally means scenic figure. A great variety of small coins of brass, copper, tin, and zinc are in circulation throughout all the islands. The most frequent of these is the Dutch *doit*, of which about 300 ought to go to a Spanish dollar. The intrinsic values of all such coins, however, have no relation to their assumed one, and being usually over-issued, they are generally at a heavy discount. The small coins of Palembang, Acheen, Bantam, and Queda are of tin. Those of the latter place go under the name of *tra*, which is, however, only the word stamp or impression. Of these 160 are filed on a filament of rattan, of which 8 strings or 1280 coins are considered equivalent to a hard dollar. In Bali and Lombok, the currency consists of Chinese zinc coins, with a hole in the middle for filing them on a string, each string having 200, and five of these are called a *siah*, that is one thousand, being the highest denomination of money in the reckoning of the inhabitants of these islands. Their value rises and falls in the market according to the supply, like any ordinary article of merchandise; so that a Spanish dollar will sometimes buy 800 of them, but often as few as 500 only. All these small coins are generally known by the Javanese name of *pichis*, corrupted *pitis* by the Malays, a name which had extended to the Philippines. The only native country of the Archipelago in which a coin of the precious metals seems ever to have been coined, is Acheen. This is of gold, of the weight of nine grains, and of about the value of 14d. sterling; to which European traders have given the name of a *mace*, a corruption of the Malay *mas*, itself a corruption of the Sanskrit *masha*, the name of an Indian weight. All the coins of this description that have been seen are inscribed with Arabic characters, and bear the names of the sovereigns under whom they were struck, so that they are comparatively modern. The Javanese appear to have coined some of their own money, as we find from many examples excavated from old temples and other places.

Money seems to have been coined in China, in gold and silver and lead, so early as the time

of Confucius, but money payments are still made in kind or by pieces of silver. Most of their calculations are made by a reckoning board. There is no coined money in China, except the brass pieces with a hole in the centre. Silver is sold by the weight, and an ounce is the equivalent of from 1700 to 1800 of these brass coins, which are called sapek by Europeans; they have some pieces of brass called tsian, and in Mongol tchos, of which the inhabitants of Siberia make Tchok and Tchek; they are of less value than a copeck. A kind of notes are in circulation among private persons.

In British India, it was enacted that from the 1st September 1835 there should be coined a rupee (with doubles, halves, and quarters) to be called the Company's rupee, which should contain 165 grains (11-12ths) pure silver, and 15 grains (1-12th) alloy. This new rupee, which was made a legal tender in all payments, is nearly equal to the former Farrakhabad, Madras, and Bombay rupees, and is received as an equivalent by them and for the Sonat rupee, and for 15-16ths of the Calcutta Sicca rupee. It is worth, reckoning silver at 56d. an ounce, 1s. 11d. and 2s. 0½d. sig., its nominal value being 2s. This current rupee bore on the one side the head of the reigning sovereign of Great Britain, and on the obverse the words E. I. Co., and the designation of the coin in English and Persian. It was also enacted that from the 1st September 1835, no gold coins shall be coined at any mint in India, except gold mohurs or 15 rupee pieces (with the subdivisions), containing each 165 grains (11-12ths) pure gold, and 15 grains (1-12th) alloy. Such mohurs were consequently worth 29s. 2d. each. These coins were marked in the same way as the new rupees, but they were not a legal tender.

About the year 1882, Sir Richard Temple, at a meeting of the Institute of Bankers in the London Institution, Finsbury Circus, gave a short account of the varied native coinages of India before the regulation of 1793. He pointed out that up to 1835 India had in effect a double standard or a system of bi-metallism. Referring to the practice of hoarding on the part of the natives, he stated that in addition to silver, gold, and precious stones, they now held notes to the extent of several millions sterling and Government securities to the value of about 20 millions, and both notes and scrip were to some extent hoarded. He said the best opinions put the amount of silver coin in actual circulation in 1850 at 150 millions sterling; the best opinions would put it now at 200 millions. The coins issued from the Indian mints during a period of 35 years averaged 11 rupees per head of the whole population. That would amount to 220 millions sterling, but a deduction of 20 millions was to be made for the money withdrawn from circulation for hoarding. The total amount of the precious metals in India he put at 338 millions sterling in silver and 122 millions in gold, or 455 millions sterling. Of this, 255 millions of silver and three millions of gold had been coined by the British mints; but this total, while exceeding by 58 millions the highest estimate of the amount in circulation, was 197 millions less than the quantity of the precious metals possessed by the people of India. In estimating the probable absorption of silver as coin in India, an analysis of the mint returns since

1835 supplied the best criterion. The amount coined during that period gave an average of about 51-3 millions annually. In quiet years the amount coined varied from two to three millions, and in brisk years from 10 to 15 millions.

There are at present two mints in British India, one at Calcutta, the other at Bombay; and in the ten years 1874 to 1883, the amounts coined yearly have ranged between £2,229,211 in 1882 and £16,314,553 in 1878,—in gold, mostly all in Calcutta, averaging £14,195; in silver, largely in Bombay, £6,268,070; and in copper, £77,583, about the same in the two mints. The average value of the British Indian currency notes, in the ten years, in circulation, has ranged from £10,670,407 in 1875 to £15,180,711 in 1883.

Persian coins are of gold, silver, and copper, each metal being struck in almost its pure state. The gold coins are called toman; one of which in intrinsic value may now be equal to 10s. English. They were worth more formerly; but during the last fifty years their size and weight have gradually decreased. There are two sorts of silver money; the highest in value is the real, eight of which amount to a toman. The smaller silver coin is called the white; eight of these being equal to a real. The copper money has the name of black, siabi; and twenty-four of them amount to one real. Tomans are coined in almost every great province; but they differ much in actual value, though all pass current for the same number of real.

Payments are made in the Turkish dominions in piastres and Spanish dollars, fifteen of the former being equal to one of the latter. The piastre is divided into forty para. A pound sterling is worth seventy to one hundred piastres.—*Prinsep's Tibet; Crawford's Dict.; La Monnaie dans l'Antiquité, par F. Lenormant; Statistical Abstract.*

MONG or Mung, a village in the Gujerat district of the Panjab, identified by General Cunningham with the city of Nikaæ, built by Alexander the Great upon the site of his battle with Porus, after the passage of the river Jhelum. It stands in lat. 32° 39' N., and long. 73° 33' E., on an old ruined mound, the modern houses being built of large ancient bricks. Greek and Indo-Scythian coins occur among the ruins, many of them bearing the monogram NIK. Tradition assigns the origin of the mound to raja Moga, whom General Cunningham identifies with the Moa or Mauas of the coins.—*Imp. Gaz.*

MONGHIR, a town in Bengal on the S. bank of the Ganges, in lat. 25° 22' 32" N., long. 86° 30' 21" E. It is a pretty town in a charming green valley, with the broad river washing it on two sides and hills in the background. Monghir was captured on the 10th October 1763. The town is celebrated for its iron manufactures. The entire process of iron manufacture, from smelting the ore to hammering out delicate ornaments, is carried on in the district. Fire-arms, swords, and iron articles of every kind are produced in abundance. A serviceable double-barrel gun can be obtained for £2, and a large double-barrel pistol for £1. The art of inlaying sword-hilts and other articles with gold or silver affords employment to about twenty families. The population, chiefly Hindus, is above 50,000. There are aboriginal and hill tribes, and semi-Hinduized aborigines inhabit the jungles in the southern

parts of the districts. Among high castes are the Babbans, who follow Rajput and Brahman customs. In the Begu Sarai subdivision, to the north of the Ganges, they are twice as numerous as the whole Muhammadan community, and form a fifth part of the entire population. Among the lower castes, the Goala are cattle-breeders, herdsmen, and dairymen. It has a monument to Pir Shah Lohouni, a Muhammadan saint of great repute. The hot spring called Sitakund, the well of Sita, wife of Rama, is five miles distant.—*Hooker, Him. Jour.* p. 87; *Tr. of Hind.* i. p. 107; *Imp. Gaz.*

MONGOLIA, in the east of Asia, stretches from Siberia in the north, towards the Great Wall of China in the south, and from Dauria and Manchuria in the east, to the Altai and the sources of the Irtysh, Tian Shan, and Eastern Turkestan in the west. In the centre of this region is the desert of Gobi, called Sha-mo or Sand Sea by the Chinese. The country north of the Gobi, from the Altai, Tungnu, and the Saian mountains in the west, to Manchuria in the east, is called Kalka, comprising as its chief districts, Urga (Kurd), Uliasutai, and Kobdo. In a N.W. direction from Gobi, between Tian Shan and the Altai, is Sungaria. Population, 2,000,000; area, 1,400,000 square miles. Mongolia populations extend in the south over the Great Wall, to the basin of the Koko Nor or Blue Lake, and thence range due west over Tangut and the northern border of Tibet. There are Mongol likewise in Turkestan, in the territories of Semeryetsensk, Alatau, and Semi-palatinsk, in the south of the province of Tomsk, with a more populous region due north to Siberia, round the Baikal lake.

This is a prolific region, and has given forth the warriors who extinguished Christianity in Asia and Africa, and nearly also in Europe, who conquered China and India, and held Russia for nigh two hundred years. They have been known to Europe as the Hun, Turk, Tartar or Tata, Kitän, Mongol, and Manchu. As known in Asia, the branches of the race comprise the Buriat, Char Aimak, Hazara, Kalmuk, Kazak, Kerait, Kipchak, Koshod or Eleuth. But, as a whole, the race may be classed as East and West Mongols and Buriat.

The East Mongols are divided into the Kalka, also the Shara Mongols, south of the Gobi, along the Great Wall north-eastward to Manchuria; and lastly, the Shiraigol in Tangut and Northern Tibet.

The West Mongol clans are the Kalmuk, Oelod, Oirad or Dorbon Oirad.

The Dorbon Oirad clans are the Sangar, Torgod, Khoshod, and Dorbod.

The ruthless conqueror Temuchin, afterwards known as Chengiz Khan, was a Mongol, born on the banks of the Onon, A.D. 1162.

The Mongol are called Kalmuk in Herat and Afghanistan. Those of Kabul and Persia are the Char Aimak and the Hazara. Aimak is a Mongolian, Manchu, and Turk word, meaning tribe. They dwell to the north of Herat and Kabul, in a country which in some places assumes a mountainous, in others a hilly character, and in some parts is well watered, in others bleak and rough, forming a watershed of two natural divisions, from the west of which flow the Murghab, the Tajend, and the Farrab-Rud, and from the east, the Helmand, the south-eastern feeders of

the Oxus, and the north-western feeders of the Kabul river.

The Tibetan and Nepalese are a Mongol race. The Dharma race, occupying the Dharma pass leading into Garhwal, are said to be the descendants of a body of Mongol whom Timur left behind him in Kamaon. They practise divination, taking their omens from the warm liver of the sacrificed sheep. They eat the yak and the cow, inter their dead for a time, and then, in the month Kartik, they exhume and burn them.

The great aboriginal stock of the inhabitants of the mountains, east of the river Kali, as in Nepal, is Mongol. The fact is inscribed in plain characters upon their faces, forms, and languages.

Ethnologists give to the race very extended possessions. Mongol is said to be from Mung, brave. It was softened by the Persians into Moghul, under which term, as known to Europe, Timur's descendants ruled in Northern India from the 16th to the 18th centuries.

Dr. Latham regards the indigenous Americans as Mongols who have emigrated direct from Eastern Asia.

About two or three millions of the population of Mongolia are directly under Chinese rule, but among Mongoloid races under that empire ethnologists include also the people of Formosa, the Chinese, the Manchu, Tibetans, Tungus, and Uzbek.

Alexander Castren arranges them into Mongol proper, Tungus, Turk, Finn, and Samoyed.

Peschel, adopting the opinions of Moritz Wagner, Dr. Latham, and Mr. A. R. Wallace, designates the following nations as Mongoloid, viz. :—

A. Malay races, viz.

Polynesian Malays.		Micronesians.
Asiatic Malays, viz. :		Madagascar.
Sunda.	Batta.	Formosa.
Tagala.	Iyak.	
Bisaya.	Macassar.	
True Malays.	Bugis.	
Javanese.		

B S. Asiatics, with monosyllabic languages—

Races in Tibet and		Laos.
Himalayas.		Annamite.
Burmese.		Chinese.
Siamese		

C. Koreans, Japanese.

D. Old World, Northern Mongoloid nations.

Ural Altaic race, viz.

a. Tungus branch.	d. Finnish branch,
b. Mongolian branch, viz.	1. Ugrian division, viz.
Eastern Mongolian,	Magyar, Ostiak,
Kalmuk, Buriat, and	Voguls.
Hazara.	2. Bulgarian division.
c. Turkish branch, viz.	3. Permian division.
Basian, Karakalpak,	4. True Finnish
Kirghiz, Kumuk, No-	division.
gay, Osmanli, Turko-	e. Samoyed branch.
man, Uigur, Uzbek,	
and Yakrit.	

E. Northern Asiatics, doubtful.

F. Behring's Straits tribes.

G. American Aborigines.

The Aleutian Islands are a volcanic band running in a regular course between Alaska and Kamtschatka. Their inhabitants are a Mongoloid race, and their children are married in their tenth year.

MONGOOS, written also Mongoose, is an Anglo-Indian name applied to species of *Herpestes*, viz. :—

H. brachyurus of Java.
H. exilis of Archipelago.
H. fuscus, Neilgherry brown mongoos.
H. griseus, *Geoffr.*, Madras mongoos.
H. javanicus, *Geoffr.*, of Java, Sumatra.
H. Jerdoni.
H. Malaccensis, *F. Can.*, Bengal mongoos.
H. monticollis, *W. Elliot*, long-tailed mongoos.
H. Nepalensis, *Gray*, gold-spotted mongoos, Nepal.
H. nyula, *Hodgs.*, nyul or neyool of the Terni.
H. Smithii, *Gray*, ruddy mongoos.
H. vitticollis, *Bennet*, stripe-necked mongoos of S. India and Ceylon.

One species, called by the Singhalese hotambeya, is believed by them not to prey upon serpents, but to live near rivers and mud brooks, the adjacent thickets affording them shelter, and aquatic reptiles, crabs, and mollusca their food. The ichneumon of the Egyptians is the *Herpestes ichneumon*, a quadruped celebrated for destroying serpents and crocodiles. It was also called ichneumon pharaonis. The mongoos are all of active habits, and of bold and sanguinary dispositions. The Madras mongoos is spread through most parts of India up to the Panjab. It hunts for and eats the eggs of birds that lay on the ground, kills lizards, rats, and small snakes, and is very destructive to poultry.

The prevailing notion in India is that the cobra poison makes no impression on it. In the year 1863, at Trichinopoly, Major Macaulay repeatedly placed cobras and the mongoos in the same room, and was satisfied that the cobra poison is innocuous to the mongoos. On one occasion, in the presence of himself and two brother officers, the mongoos was fairly struck at least once; this was distinctly seen by the three; the cobra fixed on the mongoos, then they grappled and rolled over and over together. On that occasion, the mongoos never showed the least fear during the whole contest; he would sometimes brush by the cobra within easy distance of being struck, but on these occasions the cobra simply remained on the defensive, erect and watchful; it was only when the mongoos advanced with the intention of fixing on him that the cobra struck at him. When the mongoos got the cobra's head fairly in his jaws, and gave it a good crunch, he quickly let it go again and foamed at the mouth considerably, and went running round shaking out the froth from his mouth as a dog does when he has bitten a frog; nevertheless it did not deter him from going in at him again and again till he had fairly munched the head and killed his enemy. He had the mongoos tied up immediately after the contest, to prevent him from obtaining that wonderful herb which he is said to eat. He examined the jaws of the cobra after death, one fang was plainly visible; the head was considerably smashed, which accounted for the other one not being detected. The cobra measured 3 feet 3½ inches, spectacles beautifully marked; he was a particularly lively snake.

The Bengal mongoos is of similar habits to that of Madras, and is found in Bengal, Assam, Burma, and Malay Peninsula. The long-tailed mongoos is found in the Eastern Ghats of the Peninsula of India, as also is the ruddy mongoos. The gold-spotted mongoos occurs from the Panjab, along the Himalaya, through Bengal to the Malay Penin-

sula. The Neilgherry brown mongoos is restricted to the Neilgherries. *H. vitticollis* occurs along the western side of India from Dharwar through Travancore to Ceylon. *H. nyula*, *Hodgs.*, in Nepal, lives in burrows of its own making.—*Horsfield*; *Tenney*; *Blyth*; *Jerdon*.

MONITOR. This name is given to a family of reptiles, the Monitoriæ of naturalists, comprising the genera *Empagusia*, *Monitor*, *Odatria*, and *Varanus*, some transferred to the Varanidæ.

Monitor dracæna, *Gray*.

<i>Lacerta dracæna</i> , <i>Linn.</i>	<i>T. cepidians</i> , <i>Daud.</i>
<i>Stellio salvaguardia</i> , <i>Laur.</i>	<i>T. Bengalensis</i> , <i>Daud.</i>
<i>Tapinambis Indicus</i> , <i>Daud.</i>	<i>Varanus dracæna</i> , <i>L.</i>

Varanus guttatus, Indian monitor.

<i>Varanus argos</i> , <i>Merrem.</i>	<i>V. gemmatus</i> , <i>Guerin.</i>
<i>V. punctatus</i> .	<i>Talla-goya</i> , . . . SINGH.

Brown, black-spotted, or yellow-eyed when young. Nostrils central, scales over the eyes flat, small, sub-equal; of the head rather large. It is a native of India.

Kabara goya, SINGH., is a larger species than *M. dracæna*, partial to marshy ground, and when disturbed upon land will take refuge in the nearest water.

Monitor Gouldii, *Schlegel*. *Hydrosaurus Gouldii*, *Gray*. Neck with two yellow streaks on the side; scales over the eyes small, granular; of forehead larger. Ventral shields small, longer than broad. N.W. Australia. See Reptiles; Varanidæ.

MONKEY, Ape, Baboon, Gibbon.

<i>Kird</i> , <i>Maimûn</i> , . . . ARAB.	<i>Cephus</i> , LAT.
<i>Sadân</i> ,	<i>Keibi</i> , <i>Kubbi</i> , . . . PERS.
<i>Ceph</i> , ETHIOP.	<i>Kaki</i> , SINGH.
<i>Kephos</i> , <i>Kepos</i> , . . . GR.	<i>Mono</i> , SP.
<i>Koph</i> , HER.	<i>Korangu</i> , TAM.
<i>Bandr</i> , HIND.	<i>Kothi</i> , TEL.
<i>Scimia</i> , <i>Bertuccia</i> , . . . IT.	<i>Mâyûn</i> , TURK.

The monkeys are arranged by zoologists into two great groups, which are as distinct in their anatomical characters as they are in their geographical distribution :

1. The monkeys of the eastern hemisphere (Catarrhine), inhabiting Africa, Arabia, India, Japan, China, Ceylon, and the islands of the Indian Archipelago.
2. The monkeys of the western hemisphere (Platyrrhine), inhabiting the warmer portions of Central and Southern America.

The Catarrhine are characterized by nostrils which converge at their lower extremity, and are there only separated by a very narrow cartilage. Their dentition is the same as in man, consisting of eight incisor teeth, four canines, and twenty molars.

Monkeys of the Old World may also be divided into—(1) Apes, without a tail, to which the oranges and gibbons belong; (2) Monkeys properly so called; and (3) Baboons.

The apes, sub-fam. Simianæ, comprise the chimpanzee and gorilla of Africa, and the oranges of Borneo and Sumatra. The gibbons are peculiar to the Indo-Chinese countries, and Malaya, Sylhet, Cachar, Assam, Khassya, Tenasserim, Malay Peninsula, and Archipelago.

The various kinds of ape seem to have been made known to the Hebrews, Greeks, and Romans by specimens brought from Africa and India; those of the Hebrews probably from India, the Hebrew name *Koph* being almost the same as the Sanskrit *Kapi*. Apes, gold, and ivory could, however, have been got from many parts of Africa,

as well as from the south and east of Asia, and their Sanskrit, Ethiopian, Hebrew, Greek, and Persian names,—Kapi, Ceph, Koph, Kephos or Kepos, Keibi, and Kubbi,—are identical, and show that the apes may have been brought from any of those regions; the Singhalese, Tamil, and Telugu names, Kaki, Korangu, and Kothi, are less similar. Had the Hebrew ships visited the isles in the Malay Peninsula, Sumatra, Java, or Borneo, they would have known of the Simia satyrus, the orang-utang of Malacca and Sumatra, the Mia of Borneo, or have seen the Siamanga syndactyla, the long arms of which measure 5 feet 6 inches across in an adult about 3 feet high. Mr. A. Russell Wallace has given the names for monkey in thirty-three languages of the Eastern Archipelago, none of which have any resemblance to the Kapi, Kubbi, or Koph of the Sanskrit, Egyptian, and Hebrew, but one of them, the Kurango of Balanghitam in N. Celebes, is almost identical with the Tamil Korangu. The names are:—

Aruka of Morella, Amboyna.
 Babah of Sanguir, Siau.
 Balanghitam of N. Celebes.
 Bohon of Menado.
 Bulless, Javanese.
 Dars of Bouton.
 Kesi of Camarian, and Teluti in Ceram.
 Kess of Amblaw, and of Cajeli, Wayapo, and Massaratty in Bouru and Batumerah.
 Kessi of Cajeli.
 Kurango in N. Celebes.
 Lebi of Matabello.
 Lek of Teor, and Gah in Ceram.
 Luka and Lukar of Teluti, Ahtiago, and Tobo of Ceram.
 Meiram of the Alfura, Ahtiago in Ceram.
 Mia of the Sulu Islands, Tidore and Galela of Gilolo.
 Miunyeet, Malay.
 Mondo of the Baju.
 Nok of Gani, Gilolo.
 Roke of Bouton, Celebes.
 Rua of Larike and Saparua.
 Salayer of S. Celebes.
 Sia of Liang in Amboyna.
 Yakiss of Wahai in Ceram.

The ancient Egyptians are said to have worshipped monkeys. Some of them in India are still worshipped, and where thus protected, they are very troublesome, often even dangerous.

Raja Krishna Chunder Roy is said to have procured monkeys from Gooptiparah, and to have married them at Krishnuggur, and on the occasion to have invited pandits from Naddya, Gooptiparah, Ula, and Santipur. The expenses of the nuptials cost about half a lakh of rupees.

Monkeys appear to frequent regions exceeding 11,000 feet in height, the Presbytis schistaceus, *Hodgs.*, ascending higher than others. These langur have been frequently seen, more especially in Garhwal and Simla, at the height of 11,000 feet, 'leaping and playing about at this elevation,' as Captain Hutton says, 'while the fir trees among which they sported were loaded with snow-wreaths.' The *Macacus rhesus*, *Audub.*, is met with as well in India (particularly in Bengal and Assam) as in the Himalaya, where it frequents heights of about 8000 feet. Turner mentions having seen a large troop of these animals in Bhutan, which are in Ceylon held in great veneration; but in Western Tibet, and farther to the north, no monkeys have yet been found.

Cynopithecus nigrescens is the black baboon monkey of Celebes.

In Ceylon there are five species of monkeys,

four of which belong to one group, the Wanderoos, and the other is the little graceful, grimacing rilawa (*Macacus pilatus*, *Shaw and Desmarest*), which is the universal pet and favourite of both natives and Europeans. The Tamil conjurers teach it to dance.—*Tr. of a Hind.* v. i. p. 19. See Mammalia, p. 836.

MONOGAMY, amongst the Hebrew people, so far back as the time of Abraham, was recognised as the only legitimate state of things. The elevated conception of marriage presented in the record of the creation testifies to a most profound sense of the sacredness of monogamy as the most intimate possible union of two persons. The Canticle is a song of wedded love and fidelity. Polygamy was not prohibited amongst the Hebrews, but there is nothing to warrant the horrible scraglio customs depicted in Judges, and instituted by David and Solomon as regal. The great bulk of the Hindu races are monogamic, and their laws and practice are in accordance with their belief.—*Bunsen*, i. p. 177.

MONOTHEISM is the primary doctrine of the Vedas, and the great craving of the Hindu mind is to turn to the worship of one God. Most perhaps believe that the idol or deity whom they worship is the one dread Being.

MONRO, SIR THOMAS, K.C.B., born in 1762, a Madras infantry officer, who rose to the rank of Major-General. He was Collector of the Ceded Districts and of the Bara Mahal, and commanded a division of the Madras army in the third Mahratta war. He took Sholapur, and settled the whole of the country between the Ceded Districts and the Southern Mahratta country. While Governor of Madras, he died of cholera near Ghooty, at Puttecondah, 6th July 1827, aged 65. He was an able administrator. A statue by Chantrey, in which he is seated on a horse in still life, has been erected in Madras to his memory. He entered the Madras army in 1779. His successful occupation of all the southern country, about 700 miles long, belonging to the Mahrattas, has been famed in history. Starting with 500 or 600 soldiers, amongst whom were a few Europeans, he took possession of the country which had been ceded by the treaty of Poona. Nine forts were surrendered to him or taken by assault on the way, and at the end of a silent and scarcely observed progress, he emerged from districts hitherto ruled by the hostile Mahratta race with an accession instead of a diminution of forces.

Under British rule three land tenures are known, the zamindari or permanent settlement, made in 1792 by Lord Cornwallis, of Bengal proper, and since then extended to Behar and Orissa, in which the lands are divided amongst middlemen, who pay a quit-rent to Government.

Under the ryotwari tenure in Madras, recognised by Sir T. Monro, the cultivators are the co-owners of the soil, and pay direct to Government. A modification of this has been introduced into Bombay.

The pattadari tenure was established by Mr. R. Martins Bird in the North-West Provinces, and it has since been extended to the Panjab. In this, Government deal direct with village communities, who are jointly responsible for the assessment.

In Bombay and Madras, Government transacts its revenue business direct with the cultivating ryot

or farmer, who is regarded as the feuar or proprietor, paying a feu-duty; and so long as that is paid he cannot be dispossessed. Neither in Bombay nor Madras is there any middleman. In Bengal, however, the British took up the zamindar system, who, under Muhammadan rule, had been partly a rent collector and partly a landed proprietor, and elected him to be owner, to the exclusion in many cases of the rights of the cultivators. Subsequently the Government, to the exclusion of the real owner, elected the tenant or the village community. In Bengal and Oudh the land tax is still levied on estates; in Northern India, on villages and proprietary holdings, and on individual fields. But in Madras and Bombay the tax is levied on the blocks of 10 or 12 acres, according to the convenience of the occupiers. Sir Thomas Munro was the strongest advocate of the ryotwari tenure.

MONSOON.

Mausam, . . . ARAB. | Etesia, GREEK, from *ἔτος*.

In Hindustan the people usually arrange the year into three periods,—the Choumasa or Burk'ha, which is the rainy season of four months' duration; after which is the Siala or Jara or Mohasa, the cold season; followed by the Dhup-kala or K'hursa, or hot season. This division indicates generally the course of the seasons in British India, though in one locality the rains or the hot or the cold seasons may be somewhat more prolonged than in another. In the Indian Ocean, and generally throughout India, the winds blow from certain quarters periodically, and are known as the south-west and north-east monsoons, these being their directions at sea. These monsoons prevail in the Indian Ocean, between Sumatra and the African coast, and between lat. 3° S. to the Asiatic coast, including the Arabian Sea, the Gulf of Bengal, and between the island of Madagascar and coast of Africa. Both of them bring rain, and that from the south-west prevails from the latter part of May till the middle of September, and is chiefly felt on the west coasts of India and Burma, and northwards towards the Himalaya. The north-east monsoon prevails from about the middle of October till the middle of December, and in British India its force is chiefly felt on the eastern coast of the Peninsula. It gathers up its waters in the Australian seas and the Archipelago, where the sun in its southern course increases the evaporation.

The north-east monsoon mostly prevails in the entrance of Malacca Strait, between Acheen Head and the Nicobar Islands, from November to May, the October and November winds being variable. On the Coromandel coast it sets in, on the average, on the 19th October, being very rarely ten days earlier or later. Its force lasts till the 10th December, and milder until the middle of February. When the north-east monsoon sets in, a current flows from the north, and by the 1st November it runs past Madras at the rate of three miles an hour. From that date it decreases till the 10th December, when it amounts to a small fraction of a mile.

The south-west monsoons, coming from the sea, carry into the interior rains for the great watershed of India. They bear with them an immense volume of vapour, as is shown by the rivers, and confirmed by the rainfall of Cherrapunji, and at 126 other stations. Cherrapunji is 4500 feet

above the sea-level. It reaches quite up to the cloud region, and receives a precipitation of 537½ inches during the south-west monsoon, from May to August inclusive. Colonel Sykes reported to the British Association, at its meeting in 1852, the rainfall at 127 places, between the parallels of 20° and 34° in India; and according to this report the south-west monsoons pour down during the three summer months upon this area 29½ inches of rain.

The south-west monsoon generally commences in the China Sea about the middle or end of April, and continues to the beginning or middle of October. It sets in rather sooner about the Gulf of Siam and Tonquin, and along the western coasts, than over to the eastward in the open sea, near the coast of China, or near the coasts of Palawan and Luconia. It also continues longer to the south of Cape Padaran and Pulo Sapata, and along the coast of Palawan, in the southern part of the China Sea, than it does more to the northward, for southerly winds frequently prevail between the Straits of Singapore and Pulo Sapata until the 8th or 15th of October, when the north-east and easterly winds are blowing in the northern part of that sea. Between Acheen Head and the Nicobar Islands the south-west monsoon generally begins about the end of April or rather early in May, and abates in October. In September, and in the greater part of October, the winds off the north extremity of Borneo and the west end of Palawan generally blow strong from the S.W., with dark cloudy weather and much rain. In that region the S.W. monsoon is strongest and least variable in June, July, and August; but from May to August sudden hard squalls blow sometimes out of the Gulf of Siam, as far as Pulo Condore and Pulo Sapata. From the Gulf of Siam to Cape Padaran the S.W. monsoon blows along the coast nearly parallel to it, though land and sea breezes are felt close to the land on the coast of Cochin-China, from Cape Padaran northward to the Tonquin Gulf. In June, July, and part of August there is in general much rain and cloudy weather all over the China Sea. On the S. coast of China the winds during the S.W. monsoon prevail frequently at S. and S.S.E. At the autumnal equinox, storms and typhoons are very liable to occur. The N.E. monsoon, in the northern part of the China Sea, opens about the end of September or beginning of October. In the southern part of this sea it usually does not set in steadily until November. In February the strength of the N.E. monsoon abates; during this month and in March it blows moderately, with steady weather all over the China Sea.

The countries and islands of South-Eastern Asia have thus a wet and a dry side. The S.W. monsoon drops much of its rain on the Western Ghats of the Peninsula of India, and moisture brought by the N.E. monsoon is deposited principally on the eastern side of the Peninsula. The south side of an island in the S.W. monsoon has one continuous shower, but as the clouds spend their rain on the central mountains, the N. coast is quite dry. In the N.E. monsoon this is reversed.

In British India the S.W. monsoons commence at the north, and back down, or work their way towards the south. Thus they set in earlier at

Calcutta than they do at Ceylon, and earlier in Ceylon than they do at the equator. The average rate of travel, or backing down to the south, as seamen express it, is from 15 to 20 miles a day. It takes the S.W. monsoons 6 or 8 weeks to back down from the tropic of Cancer to the equator. During this period there is a sort of barometric ridge in the air over this region, which may be called the monsoon-wave. In this time it passes from the northern to the southern edge of the monsoon belt, and as it rolls along in its invisible but stately march, the air beneath its pressure flows out from under it both ways, on the polar side as the S.W. monsoon, on the equatorial as the N.E.

As the vernal equinox approaches, the heat of the sun begins to play upon the steppes and deserts of Asia, with power enough to rarefy the air, and cause an uprising sufficient to produce an indrought thitherward from the surrounding region. The air that is now about to set off to the south as the N.E. monsoon is thus arrested, turned back, and drawn into this place of low barometer as the S.W. monsoon. These plains become daily more and more heated, the sun more and more powerful, and the ascending columns more and more active; the arc of inrushing air, like a circle on the water, is winded, and thus the S.W. monsoons, backing down towards the equator, drive the N.E. monsoons from the land, replace them, and gradually extend themselves out to sea.

The S.W. monsoon commences to change at Calcutta, in lat. 22° 34' N., in February, and extends thence out to sea at the rate of 15 or 20 miles a day; yet these winds do not gather vapour enough for the rainy season of Cherrapunji, in lat. 25° 16' N., to commence with until the middle or last of April, though this station, of all others in the Bengal Presidency, seems to be most favourably situated for wringing the clouds. Selecting from Colonel Sykes' Report of the Rainfall of India, those places which happen to be nearest the same meridian, and about 2° of latitude apart, the following statement is made, with the view of showing, as far as such data can show, the time at which the rainy season commences in the interior:—

	Lat.	Long.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.
Purie, . . .	19 48 85	49	in	in	in	in	in	in	in	in
Baitul, . . .	21 51 77	58	...	1	1	5	14	7	4	...
Saugor, . . .	23 50 78	47	...	...	2	2	15	12	13	1
Humirpur, . .	26 7 79	47	...	...	...	7	13	11	5	1
Bareilly, . . .	28 12 79	34	...	...	...	3	17	8	2	3
Ferozpur, . .	30 37 74	41	...	...	...	1	19	...	...	...
Simla, . . .	31 6 77	11	1	...	1	4	18	12	...	...
Cherrapunji, .	25 16 91	43	128	115	147	99	104	72	40	...
			229	120	173	210	163	100	45	...

The course of the local monsoons is determined by the existence of alternately high and low atmospheric pressure over the country. This centre of minimum pressure is, as it were, a point upon which the wind turns, or it is the goal towards which the wind blows, while the place of greatest pressure is the point from which the winds diverge. As the determination of these points gives the general character to the monsoon

in each locality, so the irregularities, the exceptions to the rule, give a distinctive character to each season. For example, in 1868, a local depression in the north-west of the Bay of Bengal diverted the moisture-laden winds from Central and Northern India, and attracted an excessive rainfall towards Bengal, west of the delta, and the northern part of Orissa. In 1869 the frontiers of Bengal were surrounded by a belt of low atmospheric pressure which shut in the rainfall, threatening to afflict the north-west with a second drought, until an egress was found for the imprisoned clouds during September and October in a rise of pressure about Hazaribagh. Such local atmospheric irregularities throw out calculation. Probably the most striking evidence of this is their misleading effects upon the determination of heights by the barometer. Thus the difference of Cuttack and Saugor Islands, which is known to be only 74 feet, appeared from the barometric readings of 1868 to be 205 feet, and from those of another year 166 feet. The track of cyclones also, though not their occurrence, is influenced in a considerable degree by local depressions.

MONTEITH, COLONEL W., of the Madras Engineers, author of Description of the Tribes and States on the Frontier of Persia and Russia; on the Boundary between Persia and Russia; Latitude and Longitude and Revenues of Azerbaijan; Routes from Bushahr to Shiraz.

MONTGOMERY, a town which gives its name to the north-eastern district of the Multan division of the Panjab. It was named after Sir Robert Montgomery, K.C.B., a distinguished civil officer of the Bengal Government. The district occupies a wide extent of the Bari Doab, and stretches across the Ravi into the Rechna Doab. From time immemorial, the Rechna Doab has formed the home of a wild race of pastoral Jat. At the time of Alexander's invasion, the Kathraons held the northern portion of the modern district, while the Malli, with their capital at Multan, had possession of the southern tract. The population of the district consists largely of the Jat, with their subdivisions Khattia, the turbulent Kharral, together with the Fatehana, Murdana, Vainiwal, Baghela, Wattu, and Johea, and Hindus of the Arora, Rajput, Brahman, Kshatriya, and Gujar, with Syud, Moghul, Pathan, Baluch Muhammadans. Many of the Jat, Gujar, and Rajput have adopted the Sikh and the Muhammadan religions. Sir Robert Montgomery distinguished himself during the Indian revolt of 1857, and afterwards served as Lieutenant-Governor of the Panjab. During his administration, there were steady and progressive measures of improvement. He subsequently became a member of the India Council to assist the Secretary of State for India.

MONTH.

Shahr,	ARAB.	Mah,	PERS.
Tingalu, . . .	CAN.	Mass,	SANSK.
Mois,	FR.	Mes,	SP.
Monat,	GER.	Masum,	TAM.
Mahaina, . . .	HIND.	Nella,	TEL.
Mese,	IT.	Ay,	TURK.
Mensis,	LAT.		

In the south and east of Asia, the races occupying the various countries divide the year into months, but some reckon by the lunar periods and some by the solar changes. The Hindus

further divide the month into two portions, called *pukh*, or fortnights. The first is termed *badi*, reckoning from the 1st to the 15th, which day of partition is called *amavus*, answering to the *ides* of the Romans, and held by the Hindus, as it was by the Jews, in great sanctity. The last division is termed *Sudi*, the bright half of the month from new to full moon, and they recommence with the initial numeral, thence to the 30th or completion, called *poonum*; thus, instead of the 16th, 17th, etc., of the month, they say *Sudi ekum* (1st), *Sudi doag* (2d). The Muhammadans of Arabia, Persia, and India, following the lunar changes, divide their year into twelve months, viz. :—

Mal arram.	Jamadi-ul-awal.	Ramazan.
Safir.	Jamadi-ul-akhir	Shawal.
Rabi-ul-awal.	or Jamadi-us-sani.	Zu-ul-kaida.
Rabi-ul-akhir or	Rajab.	Zu-ul-hajja.
Rabi-us-sani.	Shaban.	

The Muhammadans, like most others, have weeks of seven days, called *shambah*. The following are the Persian names of the days :—

Ek-shambah, . . . Sunday.	Panj-shambah, . . . Thurs.
Do-shambah, . . . Monday.	Aduna or Jumma, Friday.
Si-shambah, . . . Tuesday.	Shambah, . . . Satur.
Char-shambah, . . . Wednes.	

The Arabs distinguish their days or *yom* as first, second, third, etc., and the Muhammadans in British India use terms partly of Arabic, partly of Persian, and partly of Sanskrit origin :—

Aitawar, . . . Sunday.	Jumarat, . . . Thursday.
Pir, Monday.	Juma, Friday.
Mangal, Tuesday.	Haftah or Awal
Char-shambah, . . . Wednes.	Haftah, . . . Saturday.

Several of the Hindu races designate the months of the year by terms derived from one source :—

English.	Singhalese.	Sanskrit.	Canarese.	Gujerati.	Hindi.	Telugu.	Tamil.
April.	Bak-masse.	Chaitra.	Chitra.	Chaitr.	Chait.	Chaitr.	Chytram.
May.	Wesak-masse.	Baisakh.	Vaishkha.	Vaisak'h or Vaishak'h.	Byshakh.	Vaishakh.	Vyasei.
June.	Peson-masse.	Jyest'h.	Jeshta.	Jet'h.	Jeth.	Jyesth.	Ani.
July.	Esele-masse.	Asar'h.	Ashadha.	Ashad or Asad.	Asar'h.	Ashad'h.	Adi.
August.	Nikini-masse.	Shrabhan.	Shrawana.	Shrawan.	Sawan.	Shrawan.	Avani.
September.	Binnere-masse.	Bhadra.	Bhadrapada.	Bhadariso.	Bhacun.	Bhadrapad.	Paratasi.
October.	Wak-masse.	Ashwin.	Ashvina.	Ashwan, Asho, Ashwin.	Asan.	Ashwin.	Arpasi.
November.	Il-masse.	Kartik.	Kartika.	Kartik, Kartak	Kartik.	Kartik.	Kartiga.
December.	Oondoowak-masse.	Agrahayan or Maraga-sirsha.	Margashira.	Magashiar, Margashirsh.	Aghan.	Magashirsh.	Margali.
January.	Doorootoo-masse.	Paush.	Pushya.	Posh.	Pas.	Paush.	Tye.
February.	Navan-masse.	Magh.	Magha.	Magh, Maha.	Magh.	Magh.	Mausi.
March.	Meddin-dinne.	Phalguna.	Phalguna.	Fagan.	Phagan.	Phalgun.	Punguni.

MONTIFITSH, a Bedouin tribe in Irak or Turkish Arabia. They are fishermen, and breed horses.

MOON, Luna.

Kamr, ARAB.	Chandra, SANSK.
Mond, Monat, . . . GER.	Nellah, TAM.
Chand, HIND.	Vemil, TEL.
Bulan, MALAY.	Aii, TURK.
Mah, PERS., TURK.	

In Hindu mythology, Chandra, the moon, is fabled to have been married to the twenty-seven daughters of the patriarch Daksha, who are in fact personifications of the lunar asterisms. His favourite amongst them was Rohini, to whom he so wholly devoted himself as to neglect the rest. They complained to their father, and Daksha repeatedly interposed, till, finding his remonstrances vain, he denounced a curse upon his son-in-law, in consequence of which he became affected by consumption, and remained childless. The wives of Chandra having interceded in his behalf with their father, Daksha modified an imprecation which he could not recall, and pronounced that the decay should be periodical only, and that it should alternate with periods of recovery. Hence the successive wane and increase of the moon. Rohini, in Hindu astronomy, is the fourth lunar mansion, containing five stars, the principal of which is Aldebaran. Hindus have long been aware of the astronomical facts of the moon's deriving its light from the sun, and by its positions forming the days of the lunar month on which particular ceremonies are to be observed. In the latter case it is supposed to move in the Mandala, the sphere or orbit of the sun, and

when in conjunction, as at the new moon or Amavasya, funeral obsequies are especially to be celebrated. According to their mythological notions, also, the moon is the grand receptacle and storehouse of amrit or ambrosia, which it supplies during the fortnight of its wane to the gods, and on the last day to the Pitri or deified progenitors. Also as personified, in Hinduism, the moon is the father of Budha and grandfather of Pururavas. The half-moon is worn by Siva upon his forehead. With the Rajputs, as with the Scandinavians, the moon is a male divinity. The Tatar nation also considered him a male divinity, like Adonis. The moon has, in many nations, been considered to exercise an influence on the body, producing and modifying diseases, and has played an important part in the development of the character of nations, and in determining the destinies of the human race. 'The sun shall not smite thee by day, nor the moon by night' (Psalm cxxi. 6). Eastern races believe firmly in the evil effects of moonlight upon the human frame. New moons, and full moons, and moonless heavens at the conjunction, have been kept with ceremonies or fastings. Eclipses, whether of the sun or moon, have been looked on as evidences of divine displeasure; the influence of the moon on marriage and child-bearing was considered great. According to Eggede, the Greenlanders believe that the moon visits their wives now and then; and that staring long at it when at its full will make a maid pregnant. Amongst the Jews, according to Rabbi Abravanel, the full moon was believed to be lucky, and the other phases disastrous, and the belief of the Greeks and Romans was similar.

The day of the full moon was by the Greeks the best for marriage. Hesiod, Aristotle, Lucilius, Horace, Pliny, Galen, Lord Bacon, and others have all made similar notices.—*Winslow on Light; Hindu Theatre; Tod's Rajasthan*.

MOON. JAP. A crest or arms, of which the Japanese are as proud as any European noble. It is worn on their dresses, on their armour, before their gateways, and wherever it can be seen. Before the Government House there is generally spread a grass tree or linen cloth, which means 'No admittance except on business.' The crest on it has much the appearance of a clover leaf, and is the 'moon' of government.—*Hodgson's Nagasaki*, pp. 16, 22.

MOON, ALEXANDER, author of a Catalogue of Indigenous and Exotic Plants growing in Ceylon. It is a bare list of names. Colombo 1824.

MOON-FLOWER, *Calonyction grandiflorum*. It is

'the white moon-flower, such as shows
On Serendib's high crags to those
Who near the isle at evening sail,
Scenting her clove trees in the gale.'—*Mason*.

MOONSTONE, a felspathic mineral, is a partially decomposed orthoclase of little value. Some of the cat's-eyes that are brought for sale by the Ceylonese are made of moonstone, and in Europe moonstone is often sold for opal.

Adularia is very abundant in some parts of the interior of Ceylon, particularly in the neighbourhood of Kandy, where it is occasionally the predominating ingredient of the rock.—*Mason*.

MOOR, a term by which the Muhammadaus of the south of India were known all through the 18th and to the middle of the 19th century. In the Hindustani dictionary by Captain Roebuck in 1813, that language was styled the jargon of the Moors. It is still used in Ceylon to designate the Muhammadaus there. The Tamil and Teling people of the Peninsula call them Turk, Turkakara, Turka-vadu. The term Moor seems to have been handed down from the early Portuguese.

Moor-man is the designation in Ceylon for a race believed to be of Arab descent. The establishment of a Muhammadan colony before the close of the 7th century is alluded to by the author Beladeri in a Chronicle of the Arab Conquests in Europe and Asia. In their funerals, the corpse, after being washed and sprinkled with powder of sandal-wood, is borne in a coffin without a bottom (its place being supplied by plaited tapes), and carried on a bier decorated with flowers, which are afterwards planted on the grave. The procession is accompanied by mourners.

The Moor-man of Ceylon seem of similar origin with the Moplah of Malabar and the Labbai of the south of the Peninsula. Throughout the Peninsula, the uneducated of the European community continue to designate every Muhammadan as a Moor-man.—*Tennent's Christianity*, p. 35.

MOOR, MAJOR, an officer of the Bombay army, who was present at Seringapatam. He wrote *Oriental Fragments*, *Hindu Pantheon*, *Hindu Infanticide*, *Narrative of the Operations of Capt. Little's Detachment and of the Mahratta Army against Tipu Sultan*.

MOORCROFT, WILLIAM, a Veterinary Surgeon of the Bengal army, who travelled in Central Asia, and after some days' illness died at Andkhui.

He lies interred outside the walls of Balkh. Author of *Journey to Lake Manasarovara*, in Little Tibet. His first attempt was made by way of Chinese Tartary, and was described in the *Asiatic Researches*. In this journey he made his way to the great plain between that and the Kouen Lun chain, the situation of the sources of the Indus and the Sutlej, and of the two remarkable lakes of Ravan and Manasarovara.

After traversing the mountains, Moorcroft and his party arrived safely at Leh, by a route on which no European had preceded them, and on his way he first determined the direction of the upper parts and the sources of two of the three great rivers of the Panjab,—the Beyah, Vipasa or Hyphasis, and the Chandrabhaga or Chenab, also the Acesines or Ab-i-sin. A very small portion of this tract, or the southern part of the hill states of Kahalur, Sukhet, and Kotoch, were crossed by Forster, but in a condition of personal restraint and danger which left him little leisure for observation. About two centuries earlier (1624), the Jesuit missionary Andrada appears to have made his way from Srinuggur to the north of the Himalaya into either Ladakh, and in the beginning of the 18th century (1715) the missionary Desideri entered Kashmir by the Pir Panjal pass, and thence proceeded to Lhassa through Ladakh. The route from Kabul to Bokhara was, at the time when it was travelled by Moorcroft, new to European investigation. Goez, who travelled from Kabul to Kashgar, and thence to China, in 1603, passed over a portion of it, but his account is concise and imperfect. 'Before I quit Turkestan,' Moorcroft writes from Bokhara, 'I mean to penetrate into that tract which contains probably the best horses in Asia, but with which all intercourse has been suspended during the last five years. The experiment is full of hazard, but le jeu vaut bien la chandelle.' His life fell a sacrifice to his zeal. At Andkhui, where he spent some days in effecting purchases, he was taken ill with fever, and died.

Mr. Trebeck, the last of Moorcroft's unfortunate party, expired at Mazar. A Haji attended him on his death-bed, and he is laid in a small burying-ground westward of the town, under a mulberry tree.—*Travels in the Himalayan Provinces*.

MOORIES are blue cloths, principally manufactured in the districts of Nellore and at Cunnatur in the Chingleput collectorate of Madras. They are 2 cubits in breadth and 28 long, and sold at from Rs. 2 to 7 each, according to their sizes. They are largely exported to the Straits of Malacca.

MOPEN, a chief of the Kardar race of the Animallay Hills.

MOP-GHIA, a tribe who occupy the range of hills between Thouk-ye-khat and Kannie creeks, skirting the Bghai race on the west. See Karen.

MOPLA, an energetic and prosperous race in considerable numbers in the south of India; in a large portion of Malabar they form half the populations, and in the Malabar district their total number by census is not short of half a million; they are also numerous in Travancore and Canara. They are a good-looking race, sturdy, intelligent, and educated. They are perhaps, in industrious habits, not second to any population to be found anywhere in India. They have comfortable, neat two-storeyed houses and homesteads; they have most of the trade of the western coast in their

hands, and are rapidly acquiring a larger and larger share in the land. They do not often seek public service. The name is supposed to be derived from the Maleala word Mapilla, literally mother's son. The intercourse with the Muhammadan merchants and seamen and Arab women of Western India seems to have been from the most ancient times. Abuzaid, writing A.D. 916, mentions that the more devout merchants of Siraf, when young men were on board, avoided sending their ships to Ceylon, as the women were very licentious; and merchants would, when newly arrived, make advances to the daughter of a king, and she, with the knowledge of her father, would go to meet him in some woody place.

The Mopla of North Malabar follow the rule, as to property, of the Marumakkattayam, having in this respect conformed to Hindu usage in the times of the ascendancy of the Hindus. The Mopla also take the wife of a deceased brother. The Mopla are sometimes called Jonakan Mapilla (from Yavana, GREEK), to distinguish them from the Nasrani (Nazarene) Mapilla, the Nestorian Christians of Malabar. On the south-east parts of the Peninsula they receive and accept the honorary designation of Labbai, from their habit of using in conversation the Arabic word Labek, 'May it please you,' 'I beg your pardon,' when not apprehending a remark.

Other titular names of the Mopla of Travancore are Gurukul, Marakar, and Kowtan. The Chulia Mopla or Labbai of the south-east of the Peninsula are called by the Teling, Jonangi, Jonagar, Jonakari. The Mopla wear a beard and moustache, cut tolerably close, and little or no hair on the head. A linen skull-cap, covered by a varied-coloured topi, protects the crown; and with the richer members of the sect, a white and gold pagri is wound around the head also. A loose flowing chemise, with gold or coloured threads worked round the borders, and a jacket of pink, blue, or elaborately-embroidered cloth of gold, with an under garment of scarlet or blue cloth, loose and short white cotton trousers, and wooden sandals, more or less handsomely decorated, complete the Mopla's costume. He invariably carries a China folding umbrella, and wears a bunch of keys suspended by a string from his neck. In his hand, slung over his shoulder, or tied round his waist, a smart Madras cotton handkerchief is always to be seen. The Mopla are generally cleanly and well attired when they appear out of their houses and bazars. Their women dress in blue and white cotton cloths, and on feast days are sometimes gorgeous to behold, with rings of brass, silver, and copper, bracelets of blue, red, and black glass, unselled wood and white metal, ear-rings of lead, silver, and pinchbeck, and necklaces of a variety of materials.

The Mopla in N. Malabar write Malealam with the Arabic character, but with additional vowel marks for e, o, di, and some of the consonants have additional dots. In S. Malabar they use the old Tamil character called vattezhuttu.

On several occasions since the west part of India came into the possession of Great Britain, the Mopla have required to be coerced. They are known to possess much religious zeal; but agrarian disputes have been a prominent cause of their outbursts. Hindu landlords kept the land

in their own hands, or leased it out to the Mopla at high rents, and then took advantage of legal rights to turn them out.

Small numbers of them with agrarian grievances, and sustained by religious fanaticism, have taken up arms, their favourite weapon being a knife. In 1849, after a series of oppressions inflicted on Hindus, the Moplas seized the pagoda of Munjerri, near Calicut, and slew a Brahman priest at the very altar itself. Madras infantry were sent to dislodge them. Mr. Wyse and others who kept close to him were killed, and the 94th Queen's came from Cannanore. The Moplas, 64 in number, fought with the greatest fury, leaving their bodies on the field, for not one man escaped.

In 1851, at Kallatur, a burst of religious zeal led to the murder of Hindus, and they were attacked in their stronghold by Madras sepoys. The 94th had to be again summoned. But outrages took place in several other places at the same time, and a wealthy Hindu and a Nair fell victims to Mopla attacks. They have had an Arab, called Taugul, as their religious leader.

MOR. HIND. A coronet. On two occasions the Rajput chieftain wears the mor or coronet,—on his marriage, and when going to die in battle, symbolic of his nuptials with the Apsara, or 'fair of heaven.'—*Tod's Rajasthan*.

MORADABAD, a town in the N.W. Provinces of British India, the headquarters of a revenue district, lying between lat. 28° 13' 45" and 29° 45' 45" N., and long. 78° 7' and 79° 2' 45" E. It is on the great Gangetic plain. Gold is obtained in the sands of the river Beas, in those of the Gumti river, at Jompole, and in sand in the Moradabad district. Moradabad was founded by Rustum Khan, who governed Sumbul under Shah Jahan. He named it Rustumnuggur, but this offending the emperor, he altered it to Moradabad, after prince Morad, to whom, however, he was opposed in the famous action on the Chambal in A.D. 1658, in which he lost his life.—*Elliot*.

MORANG, a large building in which the unmarried hillmen of Assam reside. Amongst the Abor, that at Membu was 200 feet long, and had 16 or 17 fireplaces. It is occupied nightly by all bachelors in the village, both freemen and slaves, and with them a certain proportion of the married men are nightly on duty, so as to constitute together a sufficient available force for any contingency of attack, fire, or other public emergency.

MORAR, headquarters of the Gwalior division of the Bengal army, situated in the state of Gwalior, Central India, in lat. 26° 13' 40" N., and long. 78° 16' 30" E., on an affluent of the Chambal river. The battlefield of Panniar is to the south of Gwalior, and that of Maharajpur to the north.

MORARI RAO, a Mahratta commander of 6000 soldiers, who came to the assistance of Clive when besieged in Arcot.

MORCHELLA, the Morel.

Ti-rh, Mu-rh, . . .	CHIN.	Khat-karwa, . . .	HIND.
Sana-rogh, . . .	HIND.	Kantha-bichu, . . .	"
Kana-kachu, . . .	"	Girehlatra, . . .	"
Kan-jach, . . .	"	Khumb, . . .	"

One of the fungi or mushrooms, some of which, belonging to the genera *Agaricus*, *Morchella*, and *Tuber*, are edible. *T. cibarium* is the truffle.

The morel plants of the N.W. Himalaya are *M. esculenta*, Linn., and the *M. semilibera*. Morels are abundant in and near Kashmir, from which considerable quantities are, after drying, exported to the plains. Dr. Stewart noticed the morel growing fresh, at 6000 feet, near Chamba. It is much eaten by natives, both fresh and dry, and is said to be preferred by them to the mushroom. Dried, it is a not unsatisfactory addition to a stew even for a European taste. A morel is found abundantly in the desert about Jhang, etc., and is said to be got near Hoshiarpur, etc., but the name of the species is not known. It is considered a great dainty by natives, and relished by Europeans. The morels which are brought from the Hazara country are large. The wholesome sorts of mushroom are said to be readily distinguished by being of a pink or flesh colour in the gills, changing to darker colour as they get older; they have also a peculiar sweet smell; and another criterion of their being edible is the outer skin peeling off easily. With some temperaments, however, mushrooms are always poisonous. *M. deliciosa*, Fr., is the *M. gigaspora*, Cooke. In the N.W. Provinces it is called Kharaira, Khooma, Khumba, Khumbur, Gumbir.—Powell; Jaffrey; Hogg; Voigt; Stewart.

MORDECAI. Hamadan, a town in Persia, is the ancient Ecbatana. It is impossible to conceive a more charming situation, a country better suited to live happily in, than Hamadan and its neighbourhood. The country is undulating, the soil rich, the water good, the climate singularly clear, healthy, and bracing; with picturesque mountains at hand for retirement during the heats of summer. In the centre of Hamadan is the tomb of Bu Ali Bin Sina, and not far from it are those of Esther and Mordecai, which are held in great veneration by the Jews of the town, and kept in a perfect state of repair. On the dome over these tombs is an inscription to the effect that Elias and Samuel, sons of Kachan, finished building this temple over the tombs of Mordecai and Esther on the 15th of the month Adhar 4474. The tombs are made of hard black wood, which has suffered little from the effects of time during the 11½ centuries they have existed. They are covered with Hebrew inscriptions, still very legible, of which Sir John Malcolm has given the following translation: 'At that time there was in the palace of Suza a certain Jew of the name of Mordecai; he was the son of Jair of Shimei, who was the son of Kish, a Benjamite, for Mordecai the Jew was the second of that name under the king Ahasuerus, a man much distinguished among the Jews, and enjoying great consideration among his own people, anxious for their welfare, and seeking to promote the peace of all Asia.' The traveller, unless told, would never recognise them as tombs. The entry is by a low door, and the tombs occupy the whole of the internal space to the ceiling, leaving only a very narrow passage for walking round the huge atone-like construction in the middle. Literally not an inch is left on the whitewashed wall on which the Jewish pilgrims of a thousand years have not inscribed their names.—Malcolm's *Persia*; Ferrier's *Journ.*; Porter's *Tr.*

MORE or Mudi. KARN. A land measure, said to be of 45 gant'ha, each of 33 feet square, or about $1\frac{1}{16}$ th of an acre.

MOREA CHINENSIS. Linn., Thunb.

<i>Ixia Chinensis</i> , L.	<i>Pardanthus Chinensis</i> , Ker.
Dusabaha, BENG.	Belameanda sholarmani,
Dusichundi, "	TAM.

A native of India and China. The root is ground and applied to any part bitten by a cobra, and believed by the people of Southern India to prevent fatal consequences. The leaves are given to cattle that have eaten poisonous vegetables.—*Hortus Malabaricus*.

MORESBY, CAPTAIN R., of the Indian navy, between 1828 and 1840 surveyed many islands in the Arabian Sea, and drew up a splendid series of charts of the Maldivé Islands. Between 1830-34 he made an admirable survey of the Red Sea, assisted by Captain Elwon, with their officers, Haines, Carless, Grieves, Jones, Barker, and others, who subsequently surveyed other parts of the coasts of India.

MORETON ISLAND is 19 miles in length, and $4\frac{1}{2}$ in greatest breadth; its timber consists of Eucalypti, Banksia, etc., with abundance of the cypress-pine (*Callitris arenaria*), a wood much prized for ornamental work. Moreton Bay chestnut is the *Castanospermum Australe*. Among its other plants are three which merit notice, from their efficacy in binding down the drift-sand by their long trailing stems, viz. *Ischamum Rottboellioide*; a handsome pink-flowered convolvulus (*Ipomaea maritima*), one stem of which measured 15 yards in length; and *Hibbertia volubilis*, a plant with large yellow blossoms. Among the marine animals of Moreton Bay are two cetacea of great interest. One of these is the Australian dugong (*Halicore australis*), which was at one time the object of a regular fishery, on account of its valuable oil. It frequents the Brisbane river and the mud flats of the harbour, and is harpooned by the natives, who know it under the name of Yung-un. The other is an undescribed porpoise.—*Macgillivray*.

MORIER, JAMES, author of a Journey through Persia, Armenia, and Asia Minor to Constantinople in 1808-9; also of a Second Journey, between 1810 and 1816; and an Account of the Iliyats of Persia.

MORINDA, a genus of plants of the natural order Cinchonaceæ, section Guettardeæ. The following species are the principal known to occur in the East Indies:—

<i>Morinda angustifolia</i> , Roxb.,	Chittagong.
<i>M. bracteata</i> , Roxb.,	Ganjam, Andaman, E. Archipelago.
<i>M. citrifolia</i> , L.,	Peninsula, Pegu, Moluccas, Cochinchina.
<i>M. exserta</i> , Roxb.,	Bun, Uch, Bengal.
<i>M. multiflora</i> , Roxb.,	Berar.
<i>M. persicifolia</i> , Buch.,	Pegu.
<i>M. pubescens</i> , Sm.,	British India, Mauritius.
<i>M. squarrosa</i> , Buch.,	Kamrup.
<i>M. tinctoria</i> , Roxb.,	Uch, all India.
<i>M. tomentosa</i> , Heyne,	Dekhan.
<i>M. umbellata</i> , L.,	Courtallum, S. Konkan.
<i>M. vagans</i> , Wall.,	China.

The bark and root of *M. tinctoria* and *M. citrifolia* in India, and *M. exserta* in Burma, and the root of *M. ternifolia* in Mysore, are employed to form a very valuable red dye, which is fixed with alum. Most of the red turbands of Madras are dyed with the root of the *M. umbellata*. The Karen prepare their red dyes most usually from the roots of two or three species. *M. citrifolia* is cultivated by the Burmese for a dye, but the Karen more commonly

MORINDA BRACTEATA.

use *M. exserta*, the indigenous species. The colour, though not brilliant, is far more permanent than many other colours.

In many parts the roots of the *M. umbellata* are employed instead of chay-root in dyeing cotton yarn red, but the colour is neither so bright nor so durable. Dr. Heyne thus describes the process: Take 3½ lbs. of white cotton yarn, and soak it in 1½ lbs. of gingelly oil, a strong lye made of the ashes of the milk-hedge, and the yarn steeped in it for four nights being dried in the sun during the day, it is then washed in brackish water and dried in the sun.

Five seers (kutchas, 13½ lbs.?) of togara root finely powdered are put into a pot of water together with the yarn, and kept all night over a fire of cow-dung. In the morning it is taken out and dried in the sun; the same process is repeated for two successive days and nights, which completes the process. It is probable that a superior dye might be obtained if the same niceties were observed as in dyeing with chay-root. In Sumatra, the outward parts of the root, being dried, pounded, and boiled in water, afford a red dye, for fixing which the ashes procured from the stalks of the fruit and midribs of the leaves of the coconut are employed. Sometimes the bark or wood of the sahang tree is mixed with these roots. Marsden says that a species with broader leaves does not yield any colouring matter, but is commonly planted in the Malayan Peninsula and in Pulo Penang as a support to the pepper vine.—*Roxb.; Heyne; Royle; Marsden; Williams; Ure; Tomlinson.*

MORINDA BRACTEATA. *Roxb.* i. p. 544.

Rouch, *BENG.* | Yaiyoe? Mhan-bin, *BURM.*

A small tree with large shining leaves, native of Ganjam, the Andamans, the Philippines, Moluccas, common throughout Pegu, and cultivated about Phoungye houses. Its wood, of a bright yellow colour, is found in the Bengal bazars under the name of rouch, and is valuable as affording a bright yellow dye.—*McClelland; Voigt.*

MORINDA CITRIFOLIA. *Lin.*

Yai yoe, Mhan-bin, *BURM.* | Ahu-gahn, *SINGH.*
Nie pa hae, Nyahgyee, *TAM.*
Al, Ach, Ak, *HIND.* | Nuna muram,
Bengado, *JAP.* | Maddi, Mulugu, *TEL.*
Bartomb, *MAHL.* | Toguru,
Kada pilva, *MALEAL.*

This small tree grows in many parts of British India, and in the islands of the Archipelago, both wild and cultivated, and its bark and root bark are used to dye red. It is grown in the N.W. Provinces only in the black soils called Kabar and Mar. It is not productive till the third year of its growth. When ripe, the roots are dug out of the ground with narrow pickaxes, every care being taken to save from injury the small roots, the bark or skin of which yields the most valuable portion of the dye; the roots when dug up are sorted into three kinds, according to the fineness of the fibres.

The colouring matter resides principally in the bark of the roots, which are long and slender, and the small pieces are the best, fetching 8s. to 10s. a maund. It is exported in large quantities from Malabar to Gujerat and the northern parts of Hindustan, but seldom finds its way to Europe. Most of the Madras red turbands are dyed with this substance.

MORINDA TINCTORIA.

The produce of the Mysore country and Bundelkhand are most prized. It is employed also to assist more expensive dyes in giving a red colour to yarn and cloth; the red thread used in carpet-making is entirely dyed with it. It is not an exhausting crop, and is usually followed by grain. The small white flowers have a very sweet scent, and the tree would thrive well and be ornamental in compounds. It is usually grown as a prop and shade for the pepper vine and coffee tree. The wood is of a deep brownish-yellow, is easily worked, is common, and little, if at all, inferior to *Nauclea cordifolia*. It makes tolerable planks, but appears never to be so used on the Bombay side, except for door-shutters and such like. It must be borne in mind that the use of mineral mordant in the native process is unknown, and, with the exception of weak lye made from the ashes of some of the plants of the jungles, no other application is made beyond the simple solution of the extract from the wood itself.—*Drs. Wight, Roxb., Voigt, Gibson; Mr. Rohde.*

MORINDA EXSERTA. *Roxb.*

Bun-uch, *BENG.* | Mogilli, *TEL.*
Mhan-bin? *BURM.* | Togari mogilli,
Myau, Nya?

A small tree of the Circars, of Bengal, Berar, and Burma; its yellow wood, hard and useful, is fit for fancy work, and does not warp. *M. bracteata* and this are only found about Phoungye houses in a cultivated state.—*Roxb.; Voigt; Beddome.*

MORINDA MULTIFLORA. *Roxb.*

Achmal of *BERAR.* | Al of *NAGPUR.*

Much cultivated for its dye about Nagpur, through Rajputana, principally near Kotah, and all over Harowtee. The plant is allowed to remain three years in the ground, and then the roots are taken up and dried. The dye is a fine turkey red. It is very plentiful. One maund costs 16 rupees.—*Roxb.; Mr. Rohde; Irvine.*

MORINDA TINCTORIA. *Roxb.*

Al, Uch, Ach, *HIND.* | Mulugu chettu, *TEL.*
Uchyuta, *SANSK.* | Luagru, Taguru,
Maddi chettu, *TEL.*

A small tree, supposed by Colonel Beddome to be the same as *M. citrifolia* in its wild state. Extreme height 36 feet, circumference 2½ feet. Height from ground to the intersection of the first branch, 10 feet. Its green fruit is pickled or eaten in curries. It is in flower and fruit the greater part, if not the whole, of the year. It is pretty common in every part of India, is largely cultivated at Ganjam, Gumsur, Bundi, Kotah, Gurgaon, Philibeet, and Mewar. Its root bark is used as a red dye, and its wood for gun-stocks. In the Circars the dyers use the bark of the fresh roots bruised and gently boiled in water for a short time. The cloth or yarn is prepared in a cold infusion of the powdered gull of *Terminalia chebula* in milk and water. It is then dried and moistened with alum water, and again dried, and receives from the above decoction a pretty bright but fugitive red. The woods of all the species of morinda are beautiful, hard, and durable, and excellent for gun-stocks. That of this species possesses all these qualities, is variegated and white, and is employed for gun-stocks in preference to all other kinds. The flowers are very fragrant.—*Drs. Roxb., Irvine, Voigt.*

MORINDA TOMENTOSA.

MORINDA TOMENTOSA. *Heyne.* *M. mudia*, *Ham.* *Manjanati*, **MALEAL.** A very common Travancore tree, attaining a height of 20 to 30 feet. Its timber is of a yellow colour, and is used for various economical purposes. The inner wood of the older trees furnishes a dye.—*Useful Plants.*

MORINDA UMBELLATA. *Linn.*

<i>M. padavara</i> , <i>Juss.</i>	<i>M. scandens</i> , <i>Roxb.</i>
<i>Nya</i> , BURM.	<i>Kliba</i> , SANSK.
<i>Patangi vriksha</i> , . . CAN.	<i>Nuna maram</i> , . . TAM.
<i>Chota al</i> , DUKH.	<i>Mulu-gudu</i> , TEL.
<i>Mang-kudu</i> , MALAT.	

A trailing creeping plant which grows in the western parts of the Peninsula of India, at Courtallum, in Malabar, and in the S. Konkan.

MORINGA APTERA. *O'Sh.* The Yessur of the Arabs, a native of Sennaar, Cairo, and Palestine. The seed yields the oil of ben, much used by perfumers and by watchmakers, as it neither grows rancid nor freezes readily; seeds acrid, and used as a rubefacient. They are also said to be purgative and emetic in small quantities.—*O'Shaugh.*

MORINGA PTERYGOSPERMA. *Gærtn.*

Hyperanthera moringa, *Vahl.*

<i>Moriaben</i> , <i>Ban</i> , . . ARAB.	<i>Sainga</i> , <i>Saigut</i> , . MAHR.
<i>Hub-ul-ban</i> (seed), . .	<i>Murinna</i> , MALEAL.
<i>Sohanjana</i> , BENG.	<i>Sajua</i> , PEKS.
<i>Da-tha-lwon</i> , . . . BURM.	<i>Sigru</i> , SANSK.
<i>Dha-ne cha</i> ,	<i>San murangay</i> , . SINGH.
<i>Nugga, Nugge-gida</i> , CAN.	<i>Murungal maram</i> , TAM.
<i>Mungay-ki-jhar</i> , . DUKH.	<i>Munaga chettu</i> , . TEL.

This is the horse-radish tree, very abundant all over British India, Burma, and the Malay Peninsula. The leaves, flowers, and seed-vessels are used in curries. The roots have precisely the flavour of horse-radish, and in India are substituted for it. The gum and bark are used in native medicine; the oil is aperient, and is much used by the native doctors in gout and rheumatism; and they prescribe the green root as a stimulant in paralysis and in intermittents, in scruple doses, and use it also in epilepsy and hysteria. The seeds are also used internally for their pungent and stimulating virtues. In Jamaica the wood is used for dyeing a blue colour. An oil is obtained from the seeds, possessed of the same qualities as the oil of ben, the product of the *M. aptera*. The delicate perfumes of flowers are often retained by the ben oil, by pouring it over the flowers, or strewing layers of the flowers for about four hours over cotton soaked in the oil. In the West Indies it is used as a salad oil. A compound infusion of *Sohanjana* represents a similar infusion of horse-radish. A compound spirit of *Sohanjana* is stimulant in a dose of from two to four fluid drachms in water. Its gum is obtained in large quantity, does not dissolve in water, resembles in some respects gum-tragacanth, for which it may probably be substituted. It exudes freely whenever an incision is made in the bark. It is used by the natives in headache, mixed with milk and rubbed on the temples, and is also employed as a local application for pains in the limbs.—*Royle; Ainslie; Roxb.; Mason; Stewart.*

MOR-MORAH, a religious sect located in Siam.—*Captain Hammy.*

MOROCARPUS LONGIFOLIUS. *Blume.*

<i>Debregeasia velutina</i> , <i>G.</i>	<i>Urtica verrucosa</i> , <i>Moan.</i>
<i>Conoccephalus niveus</i> , <i>W.</i>	<i>U. longifolia</i> , <i>Burm.</i>
<i>Gass-dool</i> ,	<i>Siam.</i>

MORRHUA VULGARIS.

Common in the Central Province of Ceylon, at an elevation of 1000 to 3000 feet, and called gass-dool. The Singhalese make fishing-lines of its bark.—*Thw.* p. 261.

MOROCARPUS WALLICHIANUS. *Thw.*

Debregeasia Wallichiana. | *Urtica leucophylla*, *Wall.*

A tree of 15 to 20 feet high, grows at Hantani, in the Central Province.—*Thw. En. Pl. Zeyl.*

MOROCCO or Marocca, the Marakash of the Arabs, a country of 800,000 square miles, at the N.W. extremity of Africa. The dominant race are Moors. Berber, Shellok, Arab, Negro, Christians, and Jews are numerous. All the mercantile and artisan transactions are carried on by Jews. These reside in the Mellah quarter, and are obliged to wear black clothes. It is the ancient Mauritania, and has been successively under the sway of the Romans, Vandals, Greeks, and Arabs. In the 11th century it fell under the Fatimite khalifs, and in the 16th century under the sherifs, descendants of Mahomed, who are still reigning. It has a population of about eight millions, but Behm and Wagner only estimate 6,140,000,—

Berber,	2,300,000	Jew,	340,000
Shellok,	1,450,000	Negro and Abid,	120,000
Moor,	3,550,000	Christians,	300
Arab,	740,000	Renegades,	200

The Arabs of Morocco are the Moors of Spain, the Saracens of France, tall graceful sons of the Arabian desert, courteous, brave, hospitable, and confiding,—descendants of the conquerors who, in the first ages of the Hijra, propagated the religion of Mahomed, crossed the Straits of Gibraltar, destroyed the Gothic chivalry, reigned in Spain for 700 years, invaded France, devastated Italy, and pillaged the suburbs of imperial Rome. When the last Arab king submitted to Ferdinand and Isabella, and the Moorish palaces of Grenada were surrendered to the Christians, the old conquerors went back to Africa and resumed their nomade life. In Tripoli, the Arab has monopolized the country. In Tunis the native reappears in a smaller proportion, and in Morocco he is very scarce. The Berber and Shellok are untamed warlike tribes dwelling in the mountains; when possible, rovers of the sea, claiming fanciful origins, but impatient of any subjection. They are the same race whom the French call Kabyle and Zouave. The Moor are little idle men, who grow fat from indolence. They are lowlanders, traders, dwellers in cities, avaricious, perfidious, cowardly, cringing, and insolent. The Riff dwellers of Kalliya, Cape Tres Forcas, correspond to the Arab Sahali on the Red Sea coast, the name Riff being evidently from Ripa, a bank. The towns of Mequenez on the north, and Morocco on the south, are the chief cities.—*Catagayo.*

MOROCCO LEATHER.

<i>Maroquin</i> ,	FR.	<i>Saffian</i> ,	RUS.
<i>Saffian</i> ,	GER.	<i>Marroqui</i> ,	SP.
<i>Marrochin</i> ,	IT.		

A fine kind of leather prepared of skins of goats in the Levant, Barbary, Spain, etc. It is of various colours, and is used for lining carriages, chairs, in the binding of books, etc.—*M'Culloch's Dict.* p. 809.

MORRHUA VULGARIS, the common cod. In New England the intestines are cut into ribbon isinglass. In Iceland also the cod is said to yield

MORRIESON.

isinglass, so also the ling (*Lota molva*); but Mr. Yarrell informed Mr. Royle that he had no reason to believe that isinglass is so prepared. See Air-bladder; Fish; Isinglass; Sounds.

MORRIESON: In the years 1812-1818, that portion of the Sunderbans lying between the Hoogly river and the Bara Punga was surveyed by two young brothers, lieutenants in the Honourable Company's army. Their names were Hugh Morrieson, of the 4th Regiment Native Infantry, who is supposed to have died of jungle fever at Jessore, contracted whilst surveying in this unhealthy tract, and W. E. Morrieson, of the Bengal Engineers, who was killed by a grape shot upon the 3d of January 1815, at a place called Jitghur, in an unsuccessful attack upon the Gurkhas.—*Cal. Review*, p. 15.

MORRISON, father and son, eminent Chinese scholars. The father wrote a Chinese Dictionary, the son a Compendious Description of Chinese Products. The father, Robert Morrison, was born at Morpeth on the 5th January 1782, and up to 1798 was a boot-tree maker with his father. In 1801 he began to learn Latin, in 1803 he commenced the study of theology, and the following year he joined the London Missionary Society. In January 1807 he was ordained a missionary to China, for which he embarked on the 31st of that month by way of America. He dressed and ate like the Chinese, and in 1809 was appointed Chinese translator to the E. I. Company. His Anglo-Chinese Dictionary was published by the E. I. Company at an expense of £12,000. He died at Canton on the 1st August 1834, in his 53d year. He completed a Dictionary and a Grammar of the Chinese language, and a version of the Bible in the Chinese tongue. He was buried at Macao. His son succeeded him as interpreter to the British, and did not long survive his father.

MORTY ISLAND, close to the N.E. point of Gilolo, has about 56 species of land birds, among which are the kingfisher, *Tanysiptera doris*; the honeysucker, *Tropidorrhynchus fuscicapillus*; and *Lycocorax morotensis*, a large crow-like starling, not yet found on Gilolo, only 25 miles distant.—*Wall. ii. p. 5*; *Horsburgh*; *Bikmore*.

MORUNG, the Nepal name for the Terai, west of the Mechi river.

MORUS, a genus of plants belonging to the natural order Urticaceæ. The chief E. Indian species known:—

- Morus alba*, *L.*, all Southern Asia.
- M. atropurpurea*, *Roxb.*, China, India.
- M. bifaria*, *Wall.*?
- M. Cashmeriana*, *Royle*, Kashmir.
- M. Indica*, *L.*, Bengal.
- M. laevigata*, *Wall.*, Nepal, Saharanpur.
- M. multicaulis*, *Perrottet*, China.
- M. nigra*, *L.*, Persia, Egypt.
- M. paniculata*, *Roxb.*, Moluccas.
- M. rubra*, *L.*, introduced into India, Bengal.
- M. scandens*, *Wall.*, China.
- M. serrata*, *Roxb.*, China.
- M. tatarica*, *Pall.*, cultivated in British India.
- M. viridis*, *Buch.*, Patna.

Several species are cultivated on account of their fruit, but still more for their leaves as food for the silk-worm. The bark of the white mulberry seems from very early times to have been made into paper in China. Marco Polo informs us that 'the Grand Khan causes the bark to be stripped from these mulberry trees, the leaves of which are used for feeding silk-worms, and takes from it that

MORUS.

thin rind which lies between the coarse bark and the wood of the tree. This being steeped, and afterwards pounded in a mortar until reduced to a pulp, is made into paper, resembling that which is made from cotton.' The bush cultivation of the mulberry in Bengal, for feeding silk-worms, consists in planting cuttings, which, as they grow, are cut down about four times in the year, in order to produce young leaves for the successive broods of silk-worms. The bark separates when the cut stems are steeped in water, and when pounded up, the greater part of the mucilaginous matter passes off, leaving a mass having much of the good qualities of linen rag half-stuff. In China, although the leaf of the common mulberry is the principal object of its culture, the fruit is eaten, and the wood burned for the lamp-black used in making ink. *Morus alba* and *M. nigra* grow equally well in the Dekhan; the white, growing to a very large tree, shedding its leaves before the hot season. The red mulberry bears fruit in the rains, as well as the black. Silk-worms may be fed on its young fresh leaves, although the leaves of the white are preferred. It grows from seed or cuttings. *M. alba*, *atropurpurea*, *Indica*, *nigra*, *rubra*, and *tatarica* are all grown in China, but *M. alba* and *M. nigra* are the general favourites, and many varieties have been obtained by cultivation; the shan-sang or hill mulberry, the kin-sang or golden mulberry, the ki-sang or fowl mulberry, and the i-sang or *Morus tatarica*, are all grown. The white species produces little fruit. An epiphyte grows on the mulberry tree in China. It is called sang-shang-ki-sang, and its woody branches are highly prized as a medicine in the pregnant and puerperal states. *M. alba*, *Cashmeriana*, *Indica*, *laevigata*, and *tatarica* grow in the hills up to Kashmir, 5000 feet, where they abound, and to 7000 feet on the Chenab. Thomson mentions it in parts of Tibet at over 9000 feet. From the accounts by Dr. Bellew and others, nine or ten kinds would appear to abound in parts of Afghanistan. Some of the trees attain to large size; specimens of 10 and 12 feet girth are not very uncommon, and Dr. Stewart noted one of 16 feet in the Salt Range. The wood of old trees is strong and useful, and is much employed for construction, implements, etc., in parts where the tree is common. About Peshawar it is the staple ordinary timber. The fresh twigs are in Kashmir used for tying loads.

The Japanese make abundance of a paper as well for writing and printing as for tapestry, handkerchiefs, packing cloths for goods, etc. It is of different qualities, and some of it is as soft and flexible as our cotton cloth. Indeed, that used for handkerchiefs might be mistaken for cloth, so far as toughness and flexibility are concerned. The materials of which it is made is the bark of *Morus papyrifera*, now transferred to the genus *Broussonetia*. In December, after the tree has shed its leaves, they cut off the branches about three feet in length, and tie them up in bundles. They are then boiled in a lye of ashes in a covered kettle, till the bark is so shrunk that half an inch of the wood may be seen projecting at either end of the branch. When they have become cool, the bark is stripped off and soaked in water three or four hours until it becomes soft, when the fine black skin is scraped off with a knife.

MORUS ALBA.

The coarse bark is then separated from the fine. The new branches make the finest paper. The bark is then boiled again in fresh lye, continually stirred with a stick, and fresh water from time to time is added. It is then put in a sieve and taken to a brook, and here the bark is incessantly stirred until it becomes a fine pulp. It is then thrown into water, and separates in the form of meal. This is put into a small vessel with a decoction of rice and a species of Hibiscus, and stirred until it has attained a tolerable consistence. It is then poured into a large vessel, from whence it is taken out and put in the form of sheets on mats or layers of grass straw. These sheets are laid one upon another with straw between, and pressed to force the water out. After this they are spread upon boards in the sun, dried, cut, and gathered into bundles for sale. This paper will better endure folding, and last longer than that of Europe. — *American Expedition*; *O'Sh.*; *Royle*; *Williams*; *Riddell*; *Smith*; *Stewart*; *Thomson*; *Bellew*.

MORUS ALBA. *Linn.*

Safed-tut, . *BENG.*, *HIND.* | Tukhlu, . . *KASHMIR*.
Tut, Shahtut, ,, ,, |

Cultivated in Europe, and in all the south and east of Asia, for its leaves, which are plucked to feed the silk-worm. *M. alba* has many forms, which have received specific names, viz.—

Byzantina, <i>Sieb.</i>	Morettiana, <i>Jacquin</i> .
Chinensis, <i>Bert.</i>	multicaulis, <i>Perot.</i>
Indica, <i>Linn.</i>	nervosa, <i>Del.</i>
Italica, <i>Poir.</i>	pabularia, <i>Jacquin</i> .
Japonica, <i>Nois.</i>	pumila, <i>Nois.</i>
latifolia, <i>Poir.</i>	tatarica, <i>Linn.</i>
macrophylla, <i>Morett.</i>	tortuosa, <i>Audib.</i>

M. Indica yields a black fruit. It has been very extensively planted in California; an acre supporting 700 to 1000 trees, producing, when five years old, 5000 lbs. of leaves fit for food. On this quantity 140,000 worms can be raised, from which ova, at a net profit ranging from £80 to £240 per acre, will be obtained by the work of one person.—*Roxb.*; *Voigt*; *Von Mueller*.

MORUS ATROPURPUREA. *Roxb.*

M. rubra, *Linn.* | Shatoot, . . . *DUKH.*

This species of mulberry from China produces a very agreeable and valuable black berry, 2 inches long, in great quantities.—*Roxb.*; *Mason*.

MORUS INDICA. *Linn.*

Po-sa, . . . *BURM.* | Toota, . . . *SANSK.*
Toot, . . *DUKH.*, *HIND.* | Itata-ombilla, . *SINGH.*
Babisaram, . . *MALAY.* | Cumble-pullum, . *TAM.*

A small tree with long tapering leaves sometimes lobed; fruit dark-red, used for making tarts; is found in Southern India; is largely cultivated in Bengal to feed silk-worms; has a delightful fruit, considered by the natives as cooling and aperient.—*Roxb.*; *Riddell*; *Ainslie*.

MORUS LAEVIGATA. *Wall.* Tut, *HIND.* Grows in Nepal and Saharunpur. Attains a large size; wood excellent.—*Wall.*

MORUS MULTICAULIS. *Perottet.* *M. cuculata*, *Bonafons.* Grows in China, the Philippine Archipelago, and in India, to which it has been introduced. It will probably soon displace the white mulberry for feeding silk-worms. The cultivation of *M. multicaulis* and *M. Sinensis* has been largely extended in the Panjab.—*Voigt*; *Stewart*.

MOSCHUS MOSCHIFERUS.

MORUS NIGRA. *Linn.* The black mulberry tree of S. Russia and Persia, yields a pleasant fruit and leaves for silk-worms. *M. atropurpurea*, *Roxb.*, is an allied variety.—*Von Mueller*.

MORUS PARVIFOLIA. *Royle.*

Ful, Kurun, . . . *PANJ.* | Tut, Tutri, . . . *PANJ.*

This small tree is found in the Sutlej valley between Rainpur and Sungnam at an elevation of 4000 to 7000 feet; it occurs wild in the plains of the Eastern Panjab, and grows up to 5000 feet in Kashmir, etc. Its fruit does not appear to be valued. Wood highly esteemed. It is cultivated; foliage prized for cattle.—*Stewart*; *Cleghorn*.

MORUS SERRATA. *Roxb.* *Wall.*

Krun, Krum, Chun, *HIND.* | Chimu, Kimu, Soa, *SUTLEJ.*

This tree is common in many parts of the Panjab, Darjiling, Himalaya, from 2500 to 9000 feet. It grows to a large size, trees of 10 and 12 feet girth being not uncommon. Dr. Stewart had seen several over 20 feet; and at Barmoor, in Chamba, he saw a magnificent specimen of 28 feet girth. Its fruit is not much valued. Its wood is yellow and strong, but is subject to the attacks of worms. It is used in construction, and for ploughs, troughs, toys, etc. The twigs are in some parts largely lopped for fodder.—*Stewart*; *Brandis*.

MOSCHIDÆ, a genus of mammals of the order Ungulata. *Moschus meminna* is the musk deer of Ceylon.

MOSCHUS MOSCHIFERUS. *Linn.*

<i>M. saturatus</i> , <i>Hodgson.</i>	<i>M. leucogaster</i> , <i>Hodgson.</i>
<i>M. chrysogaster</i> , <i>Hodys.</i>	
Honde, <i>BAIKAL-TUNGUS.</i>	Saiga, . . <i>LAKE BAIKAL.</i>
Dsehiya, <i>CEUTA-TUNGUS.</i>	Bjos, . . . <i>OSTIAK.</i>
Xe, Cho hiang, . . <i>CHIN.</i>	Gifar, Toorgo, . <i>TARTAR.</i>
Kastura, . . . <i>HIND.</i>	Jag, Lawa, . . . <i>TIB.</i>
Kudari, . . . <i>KALMUK.</i>	Ghao, Altah, <i>TIB.-TANGUT.</i>
Bena, . . . <i>KANAWAH.</i>	Kaborga, <i>YENISEI-RUSS.</i>
Rouz, . . . <i>KASHMIR.</i>	Tsanja, <i>YENISEI-TUNGUS.</i>
Ribjo, . . . <i>LADAKH.</i>	

The musk deer is found from Siberia through Central Asia to the Himalaya. In these mountains it is found at great elevations, in summer rarely below 8000 feet, and as high as the limits of the forest. It is solitary, living in retired spots near rocks, or in the depths of the forest. It is easily traced by the heaps of dung on its runs, for it is partial to localities, and both in habits and general appearance has a great affinity to the hare. Adams sometimes found it by following up its trail through the copse across the grassy glade into a little dell, where the indifferent creature might have been seen feeding within a few yards. The mode of its progression is remarkable, and comprises a series of spasmodic leaps, while now and then it stops to reconnoitre, or, walking a few feet, resumes these fantastic movements. The musk is most sought after during the rutting season in autumn. Adams repeatedly examined the contents of the glands at other seasons, but except a rank, offensive odour from the dark pigmentary substance contained in them, he could not discover a trace of musk.

Moquin Tandon describes the glands as consisting of two oval pyriform sacs of unequal size, which open into the preputial groove by two large orifices. Those of the adult male are from 3 to 5 inches in length; those of the female are somewhat less developed. In the living animal the

castoreum is an almost fluid substance of a strong, penetrating, and nearly fetid odour. When dried, the sacs have a dark-brown colour and wrinkled appearance. The market value of each bag is from £1 to £1, 10s.—*Adams' Naturalist in India; Jerdon's Mammals.*

MOSEILAMA, an opponent of Mahomed. He wrote suggesting a combined action and division of the conquests: 'Moseilama the apostle of God, to Mahomed the apostle of God—Now let the earth be half mine and half thine?' The reply was: 'Mahomed the apostle of God, to Moseilama the liar—The earth is God's, he giveth it to such of his servants as he pleaseth, and they who fear him shall prosper.' He was killed at the battle of Yemama.

MOSES, a leader of the Hebrew race, known amongst Muhammadans as the prophet Musa or Hazrat Musa, also as the Kalam-Allah or mouth-piece of God, and as the author of the five books which they style Taurait. His Egyptian name means Son of the Water. He was brought up in the neighbourhood of Heliopolis, the chief seat of Egyptian philosophy. On leaving the city of the Sun, called in Coptic Rameses, in Greek Heliopolis, he fled to the desert. Moses subsequently led the Israelites out of Egypt.—*Shorpe's Egypt.*

MOSES OF CHORENE wrote a little after A.D. 440, and probably drew from earlier authors. He speaks of Jenasdan (*i.e.* Chinistan or China land) as a great plain country east of Scythia, at the extremity of the known world, and occupied by a wealthy and civilised people of character so eminently pacific as to deserve to be called not merely friends of peace, but friends of life. Their country then furnished an abundance of silk, inasmuch that silk dresses, so rare and costly in Armenia, were there common to all classes.—*Yule, Cathay*, i. p. 83.

MOSLIM, properly Muslim, a term by which Muhammadans in Asia designate themselves; it is derived from the Arabic word Salām, he gave safety, peace; and hence Muslim, a person who is saved, the plural of which is Muslimin, ordinarily written Musalman, and for the feminine Musalmani.

MOSQUE, the place of public worship amongst Muhammadans. The Jāma Masjid is the chief mosque of the city, where general service is held every Friday. The word is derived from the Arabic Masjid or Masgid. It is generally a square, with three walls so built that looking to the back wall the worshipper faces Mecca. The Kazi or other preacher stands on a minbar, a small dais with three steps built against the back wall. The first mosque of the Muhammadans was erected by Mahomed at Medina; shortly afterwards, when he entered Mecca as a conqueror, he destroyed the idols of the Arab pantheon, and purified that venerable building of its abominations. He had probably observed in Syria the two forms appropriated by the Christians to their places of worship, the cross and the basilica; he therefore preferred a square to a parallelogram, some authors say with, others without, a cloister, for the prayers of the saving faith. At length, in the reign of El Walid (about A.D. 90), the cupola, the niche, and the minaret made their appearance, and what is called the Saracenic style became the order of the Muhammadan world.

Several of the mosques of India are of large dimensions. One in Bombay would hold 4000 worshippers. The mosque at Constantinople was originally the St. Sophia Church of the Christians. It is the largest building in the world. One in the Ahmadabad collectorate was built by Balol Khan Kazi at an expense of 1 lakh of rupees, about the 13th century. The Khan Masjid, built about the 12th century, and the Jama Masjid, each cost about 2 lakhs. The Jama Masjid at Champair, in Gujerat, is said to have been built by Muhammad Shah A.D. 1484. It is of white sandstone, beautifully cut and set.

The mosque at Ajmir was commenced A.D. 1200, and completed by Altamsh 1210-1236, and is called the Arhai din ka jhompra. It was constructed from a Jaina temple. Its courtyard has a screen of seven inches, on which Cufic and Togra inscriptions are interwoven with architectural decorations. A mere mention must be made of the tomb at Sipri near Gwalior; and that of Sher Shah near Sasseran in Shahabad; at Jaunpore (Jonpur), the Jama Masjid and Lal Darwaza Masjid; at Ahmadabad, the Jama Masjid and other mosques; and tombs and mosques at Sirkej and Butwa; the Jama Masjid at Cambay, erected A.D. 1325, in the time of Mahmud Shah Ghori; the tomb of Mahmud Begurra near Kaira; at Mandu, the great mosque, the Dharmasala, the Jahaz Mahal; in Bengal, the Kadam Rasul mosque, the Minar at Gaur, and the Adina Masjid at Malda.

In Egypt, the mosques are matted or carpeted, and over is spread the chandni, a carpet of white cotton cloth. In India, the ordinary flooring is of stone slabs, and usually the sole object to be seen is a small pulpit niche, the mihrab, and near to it the minbar or three steps built on the wall next to Mecca, on or near which the Kazi, Mulvi, or Imam stand. There is nothing to distract the worshipper's attention, and every one seems absorbed in devotion. The Rev. Norman McLeod, D.D. (Eastward, p. 67), alludes to this, and says that the whole service imparts the impression of worship to an unseen God. It is perhaps something in their character, either original or acquired, or in their faith, or perhaps to their being accustomed to a more out-of-door life, that enables them so entirely to abstract themselves from their ordinary avocations, and to engage with such reverent earnestness in prayer. But every traveller in the east will see Muhammadans spread their carpets on the ground, or place their staff or sword in front of them, and bend their knee in lowly homage to their Maker, and, in all the bustle of a crowded bazar, or on ship board, remain apparently as much abstracted as if in a desert. Muhammadanism, adds the reverend author, owes its origin to Judaism and Christianity: like them is derived from Abraham, and is the worship of the one God; and Christians, he thinks, are apt to undervalue the good obtained from its divinely-reflected beams, which in some degree irradiate spots that would otherwise be in outer darkness. Muhammadanism was perhaps seen in its brighter aspects at Baghdad during the khalifat, and at Cordova, to which Christians repaired for a liberal education. But, in India, it has ever been a mere ritualistic worship, with certain dogmatic formulæ in Arabic words, the meanings of which are known to very few even of those

acquainted with the words themselves. Umar Khayyam says,—

'Pagodas are like mosques, true houses of prayer,
This prayer that church bells waft upon the air;
Kaaba and temple, rosary and cross,
Are but divers tongues of world-wide prayer.'

There is a curious resemblance in this verse to the words of Abul Fazl, the minister of the emperor Akbar, words in which the poet is supposed to represent his royal master's views as well as his own,—

'If it be a mosque, people murmur the holy prayer;
If it be a Christian church, people ring the bell from
love to thee.'

MOSQUITO.

Machr,	HIND.	Koni,	TAM.
Nanauk, Agas, . .	MALAY.	Doma,	TEL.
Agih,	"	Sivri-sinek, . . .	TURK.

Species known are *Culex laniger*, *C. fuscans*, *C. circumvolens*, and *C. regius*. These insects chiefly abound near stagnant water and near the great rivers. Along the banks of the Irawadi, every Burman sleeps under a mosquito curtain, the insects are so numerous. Their passage from a river or tank is intercepted by trees, and at Kim-mendyne myriads hang about the trees. The mosquito has three stages of existence; in two of which it is a water insect, in the third the well-known winged one. On a 6th May, at 5 A.M., Dr. W. G. Christ observed several mosquitoes on the surface of some stagnant water, each in close proximity to a yellowish substance, *Del. ich*, when viewed through a microscope, *in Ja* to be a collection of eggs that the mosquitoes were depositing; each collection, though consisting of not fewer than 100 eggs, did not exceed 3-20ths of an inch in length, and about 1-20th of an inch in breadth. These eggs were arranged in lines, standing on end, and were each about 1-40th of an inch long; the lower end being larger than the upper, so that the upper surface of the collection was somewhat concave. A few of these collections of ova were carefully introduced, with some of the water on which they floated, into a tumbler, and placed under a glass shade. Excepting a change of colour, from a yellow to a dark brownish-grey, which occurred within six hours after being put into the tumbler, no visible alteration took place till two days and a half, when the water was found to swarm with animalculæ. The shells of the ova were still adherent, as when first observed. On examining one minutely, the larger or under end was found to have opened, like a lid, to allow the insect to escape into the water. A lady's thimble, furnished with a lid, would resemble exactly the appearance of what is being described. The design of having the lids placed at the bottom is evidently to allow the newly-hatched animalculæ immediate exit from the shell into the water; and the concavity of the whole collection, above alluded to, effectually tends to retain the large ends undermost. Had the ova been arranged promiscuously, as to the large and small ends being upwards and downwards, it is evident that the newly-hatched insects, under the former arrangement, would have some difficulty in reaching the water, a difficulty that most probably would amount to an impossibility,—one which, at all events, is effectually prevented by the concave form of the collection. In the newly-hatched insect, the

chest or thorax (the heart is seen, obscurely however, the body being only semi-transparent) is furnished with four projections; from this organ two blood-vessels proceed down the centre of the body, to the end of the elongation, the extreme termination of which is to be seen just above the surface of the water, where the insect lives for the most part; the body being suspended, as it were, from this, head lowermost. Between the heart, in the thorax, and the extremity of this singular elongation, an active sanguiferous circulation is to be observed; in all probability, therefore, it is the seat of the lungs or gills, and it would appear that a comparatively large supply of air is essential to the existence of the insect, as it lives as much as possible in this pendulous position at the surface, with the extremity of the elongation rising just above. Its motion, which is quick, is effected by a rapid bending of its whole body, so that the head and tail (the latter consisting of a bundle of delicate filaments) approximate alternately on either side of the body. It always goes tail foremost, so that the head is dragged along behind. When in search of food, it throws out, in advance of its mouth, a couple of delicate brushes, the individual filaments of which are of microscopic size. Each of these is put in rapid circular motion, whereby a double kind of whirlpool is occasioned. Whatever food comes within the sphere of these vortices is speedily devoured. The food appears to be principally decomposing vegetable matter, some of which he put into the tumbler, as the vessel in which the ova were discovered contained it; on this they fed voraciously. They did not, however, entirely confine themselves to a vegetable diet. He was much amused with one, when in a drop of water, under the microscope; in these confined limits its appetite did not forsake it, and the only article of food it found was the head of one of its own species. So soon as this came within the vortex, it was ravenously seized, but, being apparently too large a morsel, it was let go, after sundry futile attempts at swallowing. It frequently came within the whirlpool again, and was as often seized, but with no better success. They, however, eat the shells they had recently quitted. Some that were kept in clean water, without food, died on the third day. In this stage of their existence the insects were lively, and grew apace. At the termination of 21 days, during which the water was thrice changed, they had attained three or four twentieths of an inch in length. On attaining this size or age, they underwent a second metamorphosis. Most likely they cast their former envelope, for the hairs, so conspicuous on the former insect, were not to be seen on the present. The shape, it will be remarked, has materially altered, but the most remarkable change is that which occurs with respect to the seat of the lungs or gills. These organs are now situate in the thorax, their former seat has disappeared, and the channel of communication now between them and the air are two small tubes on the top of the chest. In this stage of their existence the insects are much less active than during the former one. A still greater contrast, however, is that now they do not require food, and have no mouth; in this respect resembling the chrysalis stage of the butterfly tribe. But the demand for air appears increased; they

rarely leave the surface of the water, and when they do descend, they take down a supply of air, small globules of which are distinctly to be observed at the end of the tube. Their descent is accomplished by striking the water with their body, but, being specifically lighter than that fluid, they rise without any effort to the surface, though in case of despatch can impel themselves upwards by the same means as they descended. However, as has been remarked, they seldom leave the surface, and, having done so, speedily return to it. The insects remain about 48 hours in this stage, towards the termination of which the legs and proboscis of the winged mosquito can be distinctly seen through the thin membrane that surrounds it. This in due course bursts, when the winged mosquito draws itself out, stands on the surface of the water a few minutes to dry and expand its wings, on which it presently proceeds to a dry situation. If the mosquito, when in either of the first two stages, be taken out of the water, it speedily dries, and it is as speedily deprived of life if immersed in that fluid immediately after becoming the winged insect. We learn from the above that the mosquito is a most prolific insect, and that, as stagnant water, such as that of tanks, etc., is necessary to its propagation, all such ought to be kept as distant as possible. Next to the torture which *Culex laniger* inflicts, its most annoying peculiarities are the booming hum of its approach, its cunning, its audacity, and the perseverance with which it renews its attacks, however frequently repulsed. Various substances are employed by the Chinese to drive them away. In India they are smoked out of a room by burning chips. A few sprigs of wormwood placed about the pillow will generally protect the sleeper from their attacks; or rub the wormwood gently over the forehead and wrists the last thing at night, and neither mosquitoes nor other noxious insects will give annoyance.

Captain Elphinstone Erskine also mentions that whenever the mosquitoes were uncommonly numerous in Rewa (which was five miles from Niague), he always used to be told that the boys had been disturbing the akau ni namu. This tree was completely covered with mosquitoes, and so thick were they, that one could easily have taken a cupful from any branch at one scoop. Every part of the tree, from the very top to the root, and in the same manner the branches, appeared to be one solid trunk, composed of mosquitoes. He was told by Thakonau that it had been so since he was a boy; that it was the property of the tree to attract the mosquitoes; and that, if never disturbed, the country would be entirely free from these troublesome insects. See Insects.

MOSQUITO BLIGHT, or Tea Bug, the *Helopeltis Antonii*, *Wood-Mason*, injures the tea-leaf. Other known species are *H. braconiformis* and *nigra* from Waigiu; *theiovora* of Assam, *Collaris pellucida*, and *podagrica*. The tea mite or red spider of the planter is the *Tetranychus buculatus*, *Wood-Mason*. It lives in societies, and punctures the leaves.

MOSQUITO TOBACCO of China are pastilles made of the sawdust of juniper and other resinous woods. The mixture is of juniper or pine-tree sawings (*pih heang fun* or *sung shoo*), *artemisia* leaves reduced to powder (*nai-hai*), tobacco leaves (*can fun*), a small portion of

arsenic (*pe-za*), and a mineral called *nu-wang*. To thirty pounds of the pine or juniper sawings, about twenty of *artemisia*, five of tobacco, and a small quantity of arsenic were added. Each article was well beaten up with water, then the whole mixed together, and in the form of a thick paste rolled on a slip of bamboo, and dried. The sticks are somewhat like the common joss-sticks of the country, or about the thickness and length of a light walking cane. Another substance is in long narrow bags of paper, — say half an inch in diameter, and two feet long, — which are filled with the following substances, namely, the sawings of pine or juniper mixed with a small portion of *nu-wang* and arsenic. The proportions are thirty pounds of sawings, two ounces of *nu-wang*, and one ounce of arsenic. This mixture is not made up in the form of a paste like the latter, but simply well mixed, and then run into the bags in a dry state. Each bag being filled, is closed at the mouth, and then coiled up like a rope, and fastened in this position with a bit of thread. Various species of wormwood are likewise employed for the same purpose. The stems and leaves of these plants are twisted and dried, and probably dipped in some preparation to make them burn. The mosquito has a mortal aversion to all these substances, and wherever they are burning, there the little tormentors will not come.

MOSS.

Mousse,	Fr.	Musco, Muschio, . . .	It.
Moos, Sumpf, . . .	Ger.	Moho o musgo, . . .	Sp.

The order Musci of botanists, small plants with very delicate tripled roots and a simple branched stem. The musci are arranged into two tribes, viz. the *Andreae*, which comprises the genera *Andrea*, and *Acroschisma*, and the *Bryce*, with the genera *Bryum*, *Mnium*, *Polytrichum*, and *Sphagnum*. Club-moss belongs to the order *Lycopodiaceae*, with the genera *Lycopodium*, *Selaginella*. The very fine powder discharged from the spore cases of *lycopodium*, called vegetable brimstone, is highly inflammable, but burns with such rapidity that it does not set fire to bodies with which it is in contact. Iceland moss is the *Cetraria Islandica*, and a decoction of it forms, when cold, a thick jelly. On the Upper Chenab a beverage is prepared from the thick rhizomoid roots and lower leaves (mingled with moss, etc.) of a small herbaceous plant, with scabrous leaves. This plant, in Tibetan, is called *Shangja*. In commerce several useful food plants are called moss, —

Australian moss, <i>Echeuma speciosum</i> .
Ceylon moss, <i>Plocaria candida</i> .
Chinese moss, <i>Plocaria tenax</i> .
Corsican moss, <i>Gracillaria helminthocorton</i> and <i>Laurencia obtusa</i> .

Irish moss, *Chondrus crispus* and *Gigartina mamilliosa*. — *Hogg; Powell*. See Algæ; *Shangja*.

MOSUL, a walled city of Asiatic Turkey, in the pashalik of Baghdad, lat. 36° 51' N., long. 43° 5' E., situated on the west bank of the Tigris, opposite to the spot where Nineveh stood; population 35,000, of whom 9000 are Christians, 1500 Jews, and the rest Arabs, Turk, and Kurd. The city is so close to the river as to be often flooded. Near there are beds of granular gypsum, and of sulphuretted springs. On the left bank, both above and below Mosul, are the ruins of Nineveh, the walls of which city extended about 3100 yards along the river, and nearly the same distance towards the interior. At about 28 miles

by the river, and 20 miles in direct distance south, long, 12° E., below Nineveh, is the celebrated bund or dyke of solid masonry, called Zikr-ul-Awaz or Nimrud, which crosses the bed of the river; and at 7 miles lower there is a dyke, called Zikr Ismail, similar to the former, but in a more dilapidated state. Mosul is the Mes-Plyæ of Xenophon. Here the Tigris rarely exceeds 250 yards, and its population and trade have greatly diminished since the time, prior to the discovery of the Cape passage, when it was the thoroughfare for the caravans between Europe and India. It formerly enjoyed a high reputation for the manufacture which derives its name from the town, and is known in France as moussiline, and in English as muslin. At a short distance is the mound and village of Nebbi Yunus, in which is a mosque which covers the supposed tomb of the prophet Jonah.—*Col. Chesney's Euphrates and Tigris.*

MOT. HIND. A leathern bucket open at both ends, used with the pe-cottah lever for raising water.

MOTHER.

Am, Walidah,	ARAB.	Al,	MAHR.
Mère,	FR.	Mâdar,	PERS.
Mutter,	GER.	Amma,	SP., TAM.
Mater,	GR., LAT.	Tyer,	TAM.
Ma,	HIND.	Tilli,	TEL.
Madre,	IT., SP.	Am, Ninc,	TURK.

The ancients loved to personify nature, as distinct from the world, and Universal Mother was a term by which it was often styled. Eastern nations deem the term mother to be one of the most reverential that can be used towards a woman; and the expressions big mother, little mother, are acceptable to all, aged women or spinsters. Genesis xxiv. relates how, in blessing Rebekah, they said unto her, 'Thou art our sister; be thou the mother of thousands of millions,' etc. Similar addresses to a daughter, when she is going from her father's house to live with her husband, are very common among the Hindus; such as, 'Be thou the mother of a son;' 'Be thou the wife of a king,' etc. 'I remember,' says Colonel Tod, 'in my subaltern days and wanderings through countries then little known, one of my Rajput soldiers at the well, impatient for water, asked a woman for the rope and bucket by the uncivil term of Rand, meaning widow. "Myn Rajputni che," "I am a Rajputni," she replied in the Hara dialect, to which tribe she belonged, "aur Rajput ki ma cho," "and the mother of Rajputs." At the indignant reply the hands of the brave Kulian were folded, and he asked her forgiveness by the endearing and respectful epithet of mother. It was soon granted, and, filling his brass vessel, she dismissed him with the epithet of son, and a gentle reproof. Kulian was himself a Rajput, and a bolder lived not.' This was in 1807, and in 1817 he gained his sergeant's knot as one of the thirty-two firelocks of Colonel Tod's guard, who led the attack, and defeated a camp of 1500 Pindaras.—*Tod's Rajasthan*, i. pp. 641, 642.

MOTHER OF CITIES, or Amu-balad, a name of Balkh. The river Oxus is known as the Amu Darya.

MOTHER OF HEAVEN, a goddess known as Mylitta, Astarte, Aphrodite, Isis, Mata, and Venus. The eminences consecrated to her worship were of a conical or pyramidal shape.

MOTHER-OF-PEARL, Nacre.

Perlemoor,	DAN.	Madre perla,	FR., SP.
Parlemoor,	DUT.	Indung mutigala,	MALAY.
Perlen mutter,	GER.	Madre-perola,	PORT.
Chip,	GUJ.	Perlo-mutr,	RUS.
Sipi chip,	HIND.	Perlemor,	SW.

Mother-of-pearl, or nacre, is the hard, silvery, internal layer of several kinds of shells; and the large varieties in the Indian seas secrete this coat of sufficient thickness to render the shell an object of commerce. Pearls are found in the shells round the coasts of Ceylon, near Ormus, in the Persian Gulf, at Cape Comorin, and in some of the Archipelagic and Australian seas. Fine large shells of a dead white are supplied by Singapore; varieties come from Valparaiso with jet-black edges. South Sea pearl-shells are common with white edges. The beautiful dark-green pearl-shells, called ear-shells or sea-ears, are more concave than the others, and have small holes round the margin; they are the coverings of the haliotis, which occurs in the Californian, South African, and East Indian seas. In the Indian collection of the Great Exhibition, specimens of the finest mother-of-pearl shells were shown, such as the *Meleagrina margaritifera*, *Haliotis gigas*, *H. iris*, and a large species of *Turbo*, which shells are known in commerce as flat-shells, ear-shells, green snail-shells, buffalo-shells. The beautiful tints of mother-of-pearl depend upon its structure, the surface being covered with a multitude of minute grooves which decompose the reflected light. It is in consequence of this lamellar structure that mother-of-pearl shells admit of being split into laminae for the handles of knives, for counters, and for inlaying. Splitting, however, is liable to spoil the shell, and different parts are selected as nearly as possible to suit the required purposes, the excess of thickness being got rid of at the grindstone. Mother-of-pearl shell is obtained on the Australian bark. The mother-of-pearl shells of the Aru Islands and Sulu sell at £3, 2s. 6d. per 133½ lbs. avoirdupois. The mother-of-pearl from the Red Sea is taken to Jerusalem, and there made into chaplets, saints' figures, and crucifixes for Christian pilgrims. At Mecca it is worked into rosaries for the pilgrims. In Europe and China it is made into buttons, in ornamentation of the papier-maché work, cabinet and ornamental work, which cause a considerable demand for it. Mother-of-pearl shells and tortoise-shell are brought to China from the Archipelago and the islands of the Pacific, but a large part is re-exported in the shape of buttons, combs, and other productions of Chinese skill. The shells of the pearl-oyster are of almost as much value as the pearls, the nacre of these shells being extensively employed in manufactures for useful and ornamental purposes. Other shells, however, have a large nacreous surface. One kind, called silver-lipped, is imported to Liverpool; another kind, called black-lipped, is brought from Manila, and a smaller shell from Panama. Coral and mother-of-pearl in India, and all the quartzose gems, are held in but little esteem by the people, who value a stone for its intrinsic price, not for the workman's skill expended in shaping it, in which the chief value of all the inferior gems consists.—*Onseley's Tr.*, 1868; *Tomlinson's Cat. Ex.* 1862; *Burton's Mecca*; *Williams*. See Mollusca.

MOTI-TALAO, or Lake of Pearls, is a large

tank in Mysore district, Mysore, formed by a dam carried across the gorge where several hill streams unite, in lat. $13^{\circ} 10' N.$, and long. $78^{\circ} 25' E.$ The tank, if full, would contain two years' supply for this area; but in recent years, the level of the water has rarely risen as high as the mouth of the channel.—*Imp. Gaz.*

MOUAT, FREDERIC JOHN, a medical officer of the Bengal army, to which he was appointed in 1839. He published a paper on the Nosological Arrangements of the Bengal Medical Returns; an Atlas of Anatomy in folio, with descriptive letterpress in Hindustani and English. Author of Rough Notes of a Trip to Reunion, and Account of the Andamans.

MOULMEIN, a large town, in lat. $16^{\circ} 30' N.$, and long. $97^{\circ} 38' E.$, built on the left bank of the Moulmein river, immediately below the junction of the Gyne and the Attaran, on a small peninsula formed by the Salwin and Attaran. It is the chief town of the Tenasserim division of British Burma. The Moulmein river is also called the Martaban river, and is the Salwin river in its lower course. The entrance is 9 miles broad from the end of Pelew Gewen Island and Amherst point. The adjacent country consists of alluvial plains, through which flow the Salwin, Gyne, and Attaran, with several abrupt crags, that at Trouba rising 2600 feet. The population in 1881 was 53,107 souls, chiefly Burmese, Arakanese, Talaing, Shan, Chinese, Hindus, Europeans, natives of Madras and Bengal, with a few Jews and Parsees, Karen, and Khyeng.

MOUND BIRD, *Megapodus tumulus* of Australia.

MOUNG-KHUNG, the Ka-du, a race scattered over the country between Kyun-Dung and MOUNG-Khung, a space of nearly two degrees. They are said to be a race of different origin from the Burmans. See India.

MOUNTAINS.

Jabl, Gabl,	ARAB.	Koh,	PERS.
Mont, Montagne,	FR.	Roh,	PUSHTU.
Berg,	GER.	Khas,	SIAM.
Pahar,	HIND.	Monte, Montana,	SP.
Monte, Montagna,	IT.	Droog,	TAM., TEL.
Mons,	LAT.	Rig,	TIB.
Gunong,	MALAY.	Dagil,	TURK.

The continent of Asia is crossed by a great desert, extending from the Caspian almost to the gates of Pekin and the Yellow Sea. To the south of this wilderness lies a region divided into northern and southern parts by the great chain of the Himalaya and the lofty Nanling mountains, which run from its western extremity to the shores of the Pacific, opposite the island of Formosa. To the north of this mountain wall are Tibet and China, separated by the Yunling mountains; to the south of the same barrier are the plains of Hindustan and the valleys of the Indo-Chinese countries, these two geographical areas being separated by the hills of Arakan. Beyond the Trans-Gangetic Peninsula there is a third region, the Malay Archipelago. Tibet is a vast expanse of plains, hills, and valleys, rising from a table-land of 15,000 feet in elevation. Its lowest elevation seems to be at its south-eastern corner, where it joins the Indo-Chinese countries, and whence they expand in long mountain ranges, which spread out like the ribs of a fan as they approach the Pacific.

The *Altai Mountains* divide the Chinese and Russian empires. This series is connected with the Himala-Tibetan mountains by the Pamir on the west and the Yunling-Irshan chains on the east. The whole forms a mountain girdle enclosing Central Asia or Mongolia and Tibet.

The mountain mass of Asia sinks to the westward of Afghanistan, rising again only in isolated peaks; and hence the Himalaya is rather ideally than really connected with the mountains south of the Caspian; and so with the Caucasian Alps on the one hand, and those of Asia Minor on the other. The Afghan mountains form a meridional chain from the western extremity of the Himalaya, descending parallel to the Indus, with a gradually decreasing elevation from above 15,000 feet, to the level of the ocean, at the Arabian Sea. The Ava and Malayan mountain chain is given off from the snow-clad mountains of East Tibet, and is continued uninterruptedly almost to the equator. The Vindhya chain crosses the Peninsula from the Gulf of Cambay to the Ganges. The Aravalli mountains extend from Hansi and Delhi to Gujerat. In the Peninsula of British India the Sahyadri or Western Ghats extend from the Tapti river to Cape Comorin. This peninsular chain forms a continuous watershed throughout its length of upwards of 900 miles, scarcely deviating from a straight line, which is parallel and close to the west coast of the Peninsula, and perpendicular to the direction of the monsoon. This chain divides the Peninsula of India unequally into two portions, marked by different climates, — a narrow western one, including Malabar, Travancore, and the Konkan; and a broad eastern one, traversed by several great rivers, and including the Carnatic, Mysore, and the Dekhan.

Between India and Tartary, the broad mountain range has the Himalaya forming the southern crest, and the Kouen Lun the northern. The interior has some lovely valleys, among which Kashmir is pre-eminent, but it is more usually broken into rocky ravines, through which the Indus, Ganges, and their affluents force their way towards the plains; or else stretches away in those vast treeless uplands which are one of the chief characteristics of the range through its whole extent. The ascent from Yarkand and Kashgar, westward to the table-land of Pamir, is almost imperceptible; and when that lofty position is gained, where the average elevation is probably as much as 15,000 feet above the sea, a lofty plateau stretches across the head-streams of the Oxus to the top of the Chitral valley. This plateau may be 700 or 800 miles in extent. It is varied by lakes, and from it descend great river systems. The Naryn and Syr (Jaxartes) belong to the Altai mountains. Only the Oxus and the Tarim come from Pamir. The Naryn, which is the main stream of the Jaxartes, runs through a long, luxuriant valley, between the culminating ridge and outer range of the Tian Shan, and drains all the northern range of the plateau. The Oxus, rising in the Sir-i-Kul or Yellow Lake of Pamir, at least 300 miles to the south of the Jaxartes, receives from its right bank a multitude of small streams, which run to the south through rugged valleys, on the western face of the Pamir uplands. The western face of Pamir between the Jaxartes and the Oxus

is far more precipitous than the eastern. Ridges run out as far as Samarcand and Karshi, and the streams from the upland which twine amongst these ridges form the Zar-afshan and Karshi part of the water system of the Oxus, though before they reach that river they are entirely consumed in irrigation.

The *Kouen Lun* mountain chain, as seen from Sumgal in Turkestan, is in lat. $36^{\circ} 8' N.$, and long. $78^{\circ} 5' E.$, and 13,215 feet above the sea. The Kouen Lun is the northern crest of the great range which bounds the high table-land of Tibet. This range has been supposed by some writers to be the true watershed between India and Central Asia, the Murus Ussu or Yang-tze absorbing all the streams which flow from the southern slopes of the range, while the northern rivers which form the Kara Kush force their way through or round the outer barrier of the Kouen Lun, and wend northward to the Gobi or Sandy Desert. The Kouen Lun is unknown between Khoten and Chardain. In the Kouen Lun, all passes above 15,000 feet are closed in winter by the heavy snowfall.

The *most westerly of the passes* belongs to the Kara-korum mountains; it is called in Balti the pass of the Mustagh, and lies at the source of the right branch of the Shigar river, a stream which joins the Indus opposite the town of Iskardo. The road over this pass to Yarkand was frequented by merchants, but for many years was disused, the reason assigned being the danger of plunder by the hordes of robbers. As described by persons who have crossed it, the snow is reached after ten days' journey from Iskardo, and continues during three marches.

The *second pass*, also over Kara-korum, is at the head of a considerable tributary which joins the Shayuk river opposite Khapalu. The enormous glacier over which this road runs was described by Vigne. Dr. Thomson did not, while in Tibet, meet with any one who had crossed it, and he was assured by the inhabitants of Nubra that they were not acquainted with any road from the upper part of their valley, either towards Khapalu or towards Yarkand.

The *third pass*, and the only one now frequented, is also over the Kara-korum, an extremely easy though very elevated one. It is by this pass that Eastern Turkestan communicates with Tibet and India.

The *most easterly pass* of which there is any notice, occurs on the road between Ruduk and Khoten. It was visited by Mr. Johnson, and a native explorer traversed another route farther east.

The *Tian Shan*, or Celestial Mountain chain, has three characteristic divisions, from the meridian of Kucha, long. $82^{\circ} 48' E.$, to its intersection with the Bolor. To the east, from the transverse course of the Aksu to Kucha, the Celestial Mountains rise in a towering ridge, covered with perpetual snows, which feed enormous glaciers, and are therefore called the Muzart or Icy Mountains. There is only one pass through the Muzart mountains, which is called by the Chinese 'the pass of Glaciers,' and by Humboldt Djeparle. Through this pass there is a road leading from Kuldja, in lat. $45^{\circ} 54' N.$, and long. $80^{\circ} 58' E.$, to Aksu.

Bolor Mountains.—The mountains of Balti extend for 300 miles, from the sources of the Gilgit and Yasin rivers, from long. 73° to $77^{\circ} E.$,

the source of the Nubra river. The Bolor mountains are called Altai by the Andijans. They are precipitous and inaccessible on their western face, and form on the east a high, cold plateau, visited only in the summer by the Kirghiz. There is only one caravan road over the Bolor, which passes through Badakhshan. The road through Badakhshan to Yarkand leads to Khulm, thence to Bokhara, Balkh, and Kabul; caravans requiring sixty-five days to reach Bokhara by this route.

The Pamir is intersected by roads well trodden by the Kirghiz, all of which lead to the khanate of Kokan, or to Karatagin.

Eastern Turkestan is enclosed by mountains on three sides: by the Tian Shan on the northern, the Pamir on the western, and Kouen Lun on the southern. These mountains belong to the highest ranges of Central Asia, and form the natural limits of the western portion of the Chinese empire. The actual boundary, however, runs along the line of pickets stretching through the outlying lower ranges on the Chinese side; beyond this frontier the territory is occupied by roaming Kirghiz. To the eastward, Eastern Turkestan is bounded by the uninhabited sandy deserts of the Makhai and Hami Gobi. It occupies consequently a plain between lat. 36° and $43^{\circ} N.$, and long. 70° and $90^{\circ} E.$ from the meridian of Paris. Eastern Turkestan occupies the centre of the table-land of Eastern Asia.

Continental India.—Its primary divisions are four,—*Hindustan*, in the widest sense of that term, including the whole Western Peninsula and the Gangetic plain to the base of the Himalaya; 2. The *Himalaya*, which rises abruptly from the Gangetic plain, and is connected with the mountain mass of Tibet to the north, and beyond India; 3. *India ultra Ganges*, including British Burma, the kingdoms of Burma and Siam, Cambodia, Annam, the French acquisitions, and the Malayan Peninsula; 4. *Afghanistan*. These divisions are marked out by great mountain barriers and by the ocean.

Himalaya.—The two sections of the Himalaya present almost insurmountable physical obstacles to communication between the countries which they divide, thereby separating the Bhoti or people of Tibet from the Hindu family of India. The distinction of climate is not less positively marked by the lines of demarcation between the cold and dry climate of Tibet with its dearth of trees, and the warm and humid climate of India with its luxuriance of vegetable productions.

To the north of the Eastern Himalaya, in Tibet, lies a vast little known tract, in which rise the head-waters of the Yang-tze-kiang, the Lantsan or Cambodia river, and the Nu or Salwin, which is identified by Chinese geographers with the Nu-king.

Western Tibet is a highly mountainous region lying on both sides of the river Indus, with its longer axis directed, like that river, from south-east to north-west. It is bounded on the north-east by the Kouen Lun chain of mountains, by which it is separated from the plains of Yarkand. On the south-east its boundary is formed by the ridge which separates the waters of the Indus from those of the San-pu. To the north-west and south-west its boundaries include the whole of the valley of the Indus and its tributaries down to about 6000 feet above the level of the sea

a considerable portion of the upper course of the Sutlej down to between 9000 and 10,000 feet, and small portions of the upper course of the Chenab, of the Ganges (Jahnvi), and of the Gogra. Every part of Tibet is traversed by ranges of mountains which have their origin either in the Kouen Lun on the north, or in the Trans-Sutlej Himalaya on the south.

The *Himalaya mountains* are nowhere under 15,000 feet, usually exceeding 17,000 and 18,000 feet, and rise in isolated peaks or groups of peaks from 21,000 to 29,000 feet. The name in Sanskrit signifies the abode of snow; and Pliny (Hist. Nat. vi. p. 17) was aware of the significance of the name, for he says, *Imaus incolarum lingua nivorum significans*. To the south of the great Kashmir valley are a varied series of hills running off from the Panjal mountains, and forming the elevated country between the Chenab and Jhelum, including Rajauri. The *Panjal mountains* are the continuation of the culminating summits that form the Southern Himalaya. Beyond the Jhelum we have a continuation southward of that long mountain series which forms the Himalayan wall of the Kaghan valley. On this is situated the hill station of Murree; this range may be taken as almost the limit of the Himalaya. Beyond this we have the whole hill country of Hazara up to the Indus. Besides these ranges, there are endless subordinate though important divisions.

In the Western Himalaya, the average elevation of Kashmir valley is between 5000 and 6000 feet above the sea. Hiramuk Mount, 13,000; Pir Panjal, 15,000; average of the valley of Indus (N. of Kashmir vale), 6000 to 7000 feet. Mountains on each side rising from 6000 to 8000 feet higher.

The *Bara Lacha* range is a part of the Northern Himalaya; it was regarded by Alexander Cunningham as the western continuation of the Himalaya. The Bara Lacha separates the Indus river from its first affluents, as the Eastern Himalaya separates the Tshang-po from the Ganges.

The *Khatak* range continues the boundary to the Indus, maintaining an average height of from 3000 to 5000 feet.

The *Salt Range* is a well-defined group of hills, varying from 2000 to 5000 feet at extreme elevations; it is remarkably scant of vegetation. The name has been given by geographers from its productiveness of rock-salt at the mines of Kheura and other places. But the range is known to natives by a variety of names. There are peaks called Karuli, Kundal, Sardi, Tilla, Bhulla, Kheura, Kas Gabhir, Kas Soj, Sangli and Chitta Hills, with many others both of the Shahpur and Jhelum districts. The Salt Range generally is called Khawa. The range runs across the Sind-Sagar Doab between the Jhelum and the Indus, crossing it from east to west, between the parallels of lat. 32° 22' and 33° N., and long. 71° 30' and 73° 30' E. It starts with three spurs or prongs, one on the east bank of the Jhelum, and two on the right; both continue separate as far as the Buna Nalla, which joins the Jhelum river at Darapur and Rasul, and then unite into one range, which continues up to Kalabagh on the Indus.

The main range of the Western Himalaya includes the great peak (20,000 feet) of Dayamar or Nanga Parbat. Here the range is intersected by the Indus river, beyond which the snowy peaks

extend westward between Swat and Chitral. At this point also the two ranges which enclose the Kaghan valley (traversed down the centre by the Nainsukh river) strike off in a S.E. direction. The southern range of the West Himalaya runs nearly parallel to the Indus, and some distance south of it. The provinces which it bounds are Kanawar and Spiti, Lahoul, Kishtwar, Kashmir, and near the Indus the tract of hill country represented by Hazara and Marri. The most remarkable pendant to this central chain is the vast chain of mountains which, starting off near the 76th parallel of longitude at the Sheshanag peak, runs round, enclosing an irregular elliptical space, and rejoins the original range midway between the 75th and 76th parallels. The amphitheatre thus formed is the Kashmir valley; the mountain ranges enclosing it, which form as it were a loop depending from the main line, are known by the name of the Panjal, or the Pir Panjal, the Snowy Panjal, the Panjal of Banihal. This chain of hills separates Kashmir from Kishtwar on the east, and from Hazara on the west. The eastern portion of the central range has another range parallel to it on the south, enclosing the Chandra Bhaga or Chenab, and forming the valley of that river which runs among them. First, then, there is the Cis-Sutlej Himalaya, which runs downward towards the plains separating the Ganges basin from the valley of the Beas, including the Suket and Mandi territory. Beyond this comes the Dhauladhar range (in which are Dharmasala and other well-known places), separating the valley of the Beas from Chamba and the valley of the Ravi; and then a system, rather than a definite chain, of hills separating the Ravi from the Chenab.

The *Siwalik* is a Sub-Himalayan range of the later or tertiary formation, named from Siva, a Hindu deity. What is strictly called the Siwalik extends in a north-western direction from the right bank of the Ganges, and runs parallel to the Himalayan range, forming the boundary of the Doab between the Ganges and Jumna; beyond this it skirts the Ambala and Ludhiana districts, and comes to its termination in the Hoshiarpur district. Though this portion alone, restrictedly, receives the name of Siwalik, Dr. Royle had shown that hills of a precisely similar nature can be traced all along below the Himalaya from the Indus, as far as the foot of the Sikkim Hills. The Siwaliks are merely the detritus of the Himalaya, and seldom reach 3000 feet, while the Himalaya rise nearly to 30,000 feet. At Hardwar the Siwalik Hills form the gorge at which the Ganges issues into the plains of Hindustan. The breadth of this range is at its widest part about ten miles when it approaches the Sutlej river, and towards its termination beyond that river the range assumes the form of little more than sandhills. The highest part of the range is about Hardwar; and to the south of Garhwal, beyond Sirmur, some of the peaks are as high as 3000 or 3500 feet above the sea-level. Dr. Falconer, on his first visit to the Siwalik Hills, inferred that they were of a tertiary age, and analogous to the molasse of Switzerland. Subsequent research by other geologists has not altered that determination, although the exact knowledge of the formation has been greatly extended. About the end of 1834, Lieutenants Baker and Durand discovered

the great fossiliferous deposit of the Siwalik, near the valley of Markanda, westward of the Jumna, and below Nahun. The range is all alluvial, in many places consisting of beds of gravel and rolled stones, fragments of the older formations of the Himalayan range above, consisting of granites, limestone, clayslate, gneiss, mica-schists, etc. Besides these there are beds of loose-grained sandstone, with much mica interposing. There are also beds of calcareous conglomerate and subordinate beds of clay. It is the clay and sand-beds of these ranges that are fossiliferous. Shells of the tertiary miocene period abound, but the chief characteristic fossils are the remains of gigantic mammalia, among which may be mentioned the *Sivatherium*, a huge creature somewhat similar to the tapir of modern days.

Two ranges cross the base of the Peninsula from east to west, the Vindhya north of the Nerbadda, the Satpura to the south of that river. The Vindhya rise abruptly from the Nerbadda, and the Salamber ranges on the slopes from the Malwa plateau connect the Vindhya with the Aravalli.

The Satpura range runs between the Nerbadda and the Tapti, and on its eastern edge is the Amarkantak plateau, rising 4500 feet. A mountainous plateau, in continuation of the Satpura, extends as far as the Ganges, terminating there in the Rajmahal Hills. This high land is bounded by the Sone on its N.W. face, and is divided by the river from the Kymore range. The S.E. slope of the plateau is towards the Bay of Bengal, and it is drained by the Mahanadi, Brahmany, Byturni, Sabunreka, and Damuda rivers.

The Aravalli chain of hills is connected by lower ranges with the western extremity of the Vindhya mountains on the borders of Gujerat, and stretches from S.W. to N.E. up to a considerable distance beyond Ajmir, in the direction of Dehli. The range divides Rajputana into two nearly equal parts, forming the division between the desert on the west and the Malwa table-land. It would be more correct to say the level of the desert, for the south-eastern portion, including Jodhpur, is a fertile country. The Aravalli chain divides the tributaries of the Indus from those of the Ganges, and may hence be regarded as a continuation of the Cis-Sutlej chain of the Himalaya, which terminates to all appearance in the plains near Nahun in Sirmur. In like manner, the peninsula of Kattyawar may be considered as the southern termination of the Aravalli, though separated from it by an alluvial plain, being the continuation of the watershed, and dividing the streams flowing to the Gulf of Cutch or the delta of the Indus from those that flow into the Gulf of Cambay.

The Dehli, Shekhawati, and Kalayana series of low hills furnish the mineral wealth of Dehli, Gurgaon, and Hissar; they appear to be spurs and offshoots of the extremity of the Aravalli range. The principal hills are the Dehli Hills, in the south-west of the district of the same name, and the Shekhawati Hills in Gurgaon, etc., and the Kalayana Hill at Dadri, which yields the flexible sandstone and the grey Narnaul marble. Among the hills in the Dehli district, a white clay, supposed to be kaolin, is produced. In Gurgaon, several clays—white, red, and yellow—and mica occur; also hematite and ironstone, and also copper, both at Singhana and in Hissar. Balla-

garh yields white and red sandstones, and the mottled red and white and blackish of the new red group.

Mount Abu, says Mr. Fergusson (p. 234), rises from the desert as abruptly as an island from the ocean up to 5650 feet high, and presents on almost every side inaccessible scarps, the summit being reached only by ravines that cut into its sides. When the summit is reached, it opens out into a lovely valley six or seven miles long by two or three miles in width, with the little Nakhi Talao or Pearl Lake, and near to it, at Delwara, the Jains selected a site for their pilgrimage or tirth. During Jaina supremacy it was adorned with several temples, two of which are of white marble. The more modern of these was built by the two brothers Tejapala and Vastupala, who erected a triple temple at Girnar (A.D. 1197–1247), and for minute delicacy of carving and beauty of details it stands almost unrivalled. The other, built also by a merchant, Vimala Sah, about A.D. 1032, is simpler and bolder, and is the oldest and most complete example of a Jaina temple. It is dedicated to Parswanatha, who is seated within.

The term *Sahyadri* is applied to the entire system of the Western Ghats (*q.v.*) from the Tapti river to Cape Comorin. The range consists to the northward of nearly horizontal strata of basalt and similar rocks steeply scarped on the western side. The highest summits, such as Mahabaleswar, 4717 feet, are perfectly flat-topped, and are undenuded remnants of a great elevated plain. The southern portion of the Sahyadri range is entirely separated by a broad gap (the Palghat, *q.v.*), through which the railway from Madras to Seypur passes.

The *Neilgherries*, a mountain offshoot from the Western Ghats, are situated between lat. 10° and 12° N., and long. 76° and 77° E. The base of these mountains, including that of the Kunda Hills, covers a circumference of 200 miles. Their greatest length is from E. to W. 46 miles, and medium breadth 15 miles. The surface is composed of ridges of different elevations. The country is divided into three Naad, viz. Peringa, Malka, and Todawar Naad. The first two are mountainous, but the third is of sloping hills, and a gently undulating surface of table-land. Doda-betta is 8700 feet above the level of the sea. The people occupying these Naad are the Todawar, Badagar, Kotar, and Kurambar. The Neilgherries, and its various branches of the Kunda, Sispara, and Kotagerry, are the mountain system of greatest absolute elevation in India proper, and exceed at several points 8000 feet.

The *Travancore* mountains present a striking analogy to the island of Ceylon. They are loftiest at the extreme north of the district, where they stretch east and west for 60 or 70 miles, separating the districts of Dindigul and Madura.

The *Pulney* or *Palnai* mountains are west of Dindigul.

The *Animallay*, south of Coimbatore; the *Shervaghi* mountains, south-west of Madura; and ranges are near Courtallum.

The *Trans-Gangetic Peninsula* mountain system may be compared to an open fan or to an outstretched hand, of which the thumb represents the hills of Arakan, the fore-finger the ridge which terminates in Malacca, the little finger the Nanling chain, running through Southern China,

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north of Canton; and the wrist the depressed edge of the table-land of Tibet, from which its waters are poured down into the Pacific, through valleys corresponding to the openings of the outstretched palm. One range prolonged through Arakan halts at Point Negrais, to reappear through the Andamans and Nicobars, and, after extending along the S.W. coast of Sumatra, passes eastward through Java and the Lesser Sunda Islands, terminating at its S.E. point. Another runs along the Malay Peninsula, is lost for a time, but appears again in the high peak of Lingin, and terminates in Banca and Billiton, and a branch from this separates at Pulo Timoan, on the east coast of the Peninsula, and ends at Carimata, in the strait between Billiton and Borneo. Two parallel ranges traverse Cambodia and Cochín-China in the same direction. Between the Cambodian range and the mountains at Sarawak, on the north-west extremity of Borneo, the Natunas Islands and Pulo Condor form the connecting link. This range, after traversing the western part of Borneo, terminates on the south coast a little to the eastward of Kotaringin. The Annam or Cochín-Chinese range can be traced most distinctly across the Archipelago to Australia.

The *Yoma Mountains* are the central chain of Burma proper. Yoma means a chain of mountains, as the parallel ranges of Arakan Yoma and the Pegu Yoma. They extend into Pegu, and form the spine, as it were, of the province, with the valley of the Irawadi on the east, and the several minor valleys lying between the offshoots by which the chain is terminated on the south, as the valley of the Zamayee or Pegu river, the valley of the Hlaine river, together with the intermediate valley of the Phoungye river or Paizundoung creek, lying between the Hlaine and Pegu rivers. One of the most southern points of the Yoma lies between the Hlaine and Paizundoung, of which the Pagoda Hill at Rangoon may be considered the last elevation, marking the direction of the chain or line of local disturbance. The most elevated portion of the Yoma chain appears to be that from whence these southern branches radiate, where the Oakkan and Thoun-zai Choungs derive their source, falling into the Hlaine river on the east and south. This part of the chain Dr. McClelland estimates at about 2000 feet above the sea on the west, and the Zamayee and the Phamgye rivers presenting steep and inaccessible declivities.

The productiveness of the tin mines of the Malay Peninsula and of Banca is well known. The Cambodian range is also rich in minerals, especially the Borneon part of it. Iron, coal, gold, and diamonds are obtained. The volcanic islands of the Archipelago also contain metals, gold-dust being found at the bottoms of many of the mountain streams.

Snow.—In the Himalaya the lowest height at which snow has fallen in winter is about 2500 feet; but such cases are extremely rare, having occurred in Kamaon and Garhwal only twice (in 1817 and 1849) since the British took possession of the country. At an elevation of 5000 feet scarcely one year in ten passes by without snowfall; but at this height the snow disappears after a few days, and sometimes even hours. 'It snows, but one does not see it,' said the natives of Khatmandu (4354 feet), meaning that the rare nightly

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hoar-frosts are melted away by the earliest rays of the sun. 6000 feet may be assigned as the limit where snow regularly falls in winter with a probability of remaining some time upon the ground.

In Western Tibet and in the Kara-korum the general elevation of the country is so great even in its lowest regions, that no part lies below the limit of hibernal snowfall.

In the Kouen Lun, even on its southern slope, a greater amount of snow is precipitated than on the northern side of the Kara-korum, while its Turkestan (northern) slopes differ still more from the Kara-korum in this respect.

The values obtained for the height of the snow line on the three mountain chains of High Asia are—

<i>a. Himalaya—</i>	
Southern (Indian) slopes,	16,200 feet.
Northern (Tibetan) slopes,	17,400 "
<i>b. Kara-korum—</i>	
Southern (Tibetan) slopes,	19,400 "
Northern (along the Turkestani plateau),	18,600 "
<i>c. Kouen Lun—</i>	
Southern (facing mountainous ramifications),	15,800 "
Northern (facing the Turkestani plain),	15,100 "

In the Himalaya the truly temperate vegetation supersedes the subtropical above 4600 feet, and the elevation at which this change takes place corresponds roughly with that at which the winter is marked by an annual fall of snow. This phenomenon varies extremely with the latitude, longitude, humidity, and many local circumstances. In Ceylon and the Madras Peninsula, whose mountains attain 8000 feet, and where considerable tracts are elevated above 6000 to 8000 feet, snow has never been known to fall. On the Khassya mountain, which attains 7000 feet, and where a great extent of surface is above 5000 feet, snow seems to be unknown. In Sikkim snow annually falls at about 6000 feet elevation; in Nepal at 5000 feet, in Kamaon and Garhwal at 4000, and in the extreme West Himalaya lower still. In the mountains of Ceylon, on the Neilgherries, and on the Khassya Hills, the temperate forms of plants are more numerous than upon the Himalaya. Violent winds sweep over the broad grassy undulating tops of the Khassya Hills, and hundreds of species common to the Sikkim Himalaya and to the Khassya ascend higher in the warm, forest-clad, and sheltered Himalayan valleys at 5700 feet in Sikkim, than they do in the Khassya Hills.

Heights.—The following heights of well-known places may be interesting:—

In the Himalaya.

Gaurisankar, 29,002 feet.	Singoleelah, 12,329 feet.
Sihaur, . . . 27,799 "	Tendon, . . . 8,662 "
Dhoulagiri, . . 26,823 "	Tonglu, . . . 10,079 "
Yassa, . . . 26,680 "	Darjiling, . . 7,165 "
Jib-jibia, . . 26,306 "	Julla Pahar, . 7,452 "
Massuri Bazar, 6,719 "	Barathor, . . 26,069 "
Church, 7,369 "	Yangma, . . . 26,000 "
Landour, . . . 7,369 "	Nanda Devi, . 25,749 "
Bazar, 6,808 "	Ibi Gamin, . . 25,550 "
Kanchinjinga, 28,156 "	Narayani, . . 25,456 "
Jumru, . . . 25,311 "	Jannoo, . . . 25,304 "
Kabroo, . . . 24,004 "	Lebong, . . . 6,039 "
Pandim, . . . 22,015 "	Senchal, . . . 8,606 "
Narsing, . . . 19,139 "	Punkabarry, . 4,600? "

In the Kara-korum.

Dapaang, . . . 23,278 feet.	Masheribum, 25,626 feet.
Dianer, . . . 26,629 "	

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In the *Kouen Lun* the peaks seem not to exceed 22,000 feet.

Neilgherries.

Dodabetta, . . . 8,760 feet.	Kundamoga, . . . 7,816 feet.
Bevoibetta, . . . 8,488 "	Tambarbetta, . . . 7,292 "
Makurti, . . . 8,402 "	Kokabetta, . . . 7,267 "
Daversolabetta, 8,380 "	Urbetta, . . . 6,915 "
Kunda, . . . 8,353 "	Daverbetta, . . . 6,571 "

Ceylon.

Peduru talla	Samanala or
Galla, . . . 8,305 feet.	Adam's Peak, 7,385 feet.
Kirigalpotta, . . 7,810 "	Narmina Kuli, 6,760 "
Totapella, . . . 7,720 "	

Central India.

Parasnath, . . . 4,469 feet.	Kalsubai, . . . 5,410 feet.
Abu, . . . 5,650 "	Dhorup, . . . 4,745 "
Rajmirgarh, . . . 3,753 "	Varada, . . . 4,665 "
Bubul, . . . 3,353 "	Torna, . . . 4,619 "

Dekhan.

Putta, . . . 4,569 feet.	Aunda, . . . 4,339 feet.
Ikhara, . . . 4,462 "	Mandvi, . . . 4,123 "

The heights of the following localities have been ascertained:—

Aksae Chin, . . . 16,620 feet.	Upper Tsomo-
Tao Gyagar, . . . 15,693 "	gnalari, . . . 14,050 feet.
" Karor Khauri	Lower Tsomo-
Talau, . . . 15,684 "	gnalari, . . . 14,010 "
Mure Tao, . . . 15,517 "	Jumnotra, . . . "
Kiuk Kiol, . . . 15,460 "	Nepal, . . . 25,500 "
Mansaraur or	Dhailun, do., 24,740 "
To Mapan, . . . 15,250 "	Peak in Nepal
Rakus Tal or	Valley, . . . 24,625 "
Tso Lanag, . . . 15,250 "	Petcha in
Tsomoriri, . . . 15,130 "	Tartary, . . . 15,000 "
Nima Kar, . . . 15,100 "	Sumunang, . . . 14,000 "
Hanle, . . . 14,600 "	Ghasa, . . . 13,080 "
Tso Gam, . . . 14,580 "	Ophir, Sum-
" Bul, . . . 14,400 "	atra, . . . 13,840 "
" Mitlail, . . . 14,167 "	

The inhabitants of the Himalaya occupy the valleys of its rivers, and carry on traffic and intercourse over the passes of the mountains, of which the following heights above the sea may be mentioned:—

Nurpur, . . . 1,665 feet.	Zoji, . . . 11,300 feet.
Kotila, . . . 1,370 "	Rotang, . . . 13,200 "
Kangra, . . . 2,647 "	Werang, . . . 13,200 "
Joala Mukhi, 1,805 "	Runang, . . . 14,500 "
Tira, . . . 2,470 "	Hangrang, . . . 14,800 "
Mundi, . . . 2,637 "	Kulzum, . . . 14,850 "
Sultanpur, . . . 4,584 "	Shatul, . . . 15,560 "
Nari Ghat, . . . 2,009 "	Baralacha, . . . 16,500 "
Rajapur do., . . . 2,500 "	Niti, . . . 16,800 "
Sekunder do., 5,430 "	Baleh, . . . 17,700 "
Jaintri do., . . . 5,632 "	Umasi, . . . 18,000 "
Gogar pass, . . . 4,900 "	Lankpya, . . . 18,000 "
Tiri do., . . . 6,484 "	Kuitrang, . . . 18,300 "
Bhamtal, . . . 4,000 "	Lakhr, . . . 18,400 "
Lake Naini Tal, 6,500 "	Mana, . . . 18,760 "

The *Himalaya* population comprise numerous tribes, mostly of the Bhot race. The names of the chief of their clans are as follows:—

Abor.	Dogra.	Koli.	Murmi or
Awalia.	Dunghar.	Kumba.	Tamar.
Awan.	Gaddi.	Kus, Khas,	Newar.
Bahoa.	Gakkar.	or Khasi.	Pallas.
Bamba.	Garhwali.	Kusund.	Palpa.
Bhutia.	Gurung.	Kuswar.	Pa-lu-sen.
Bhramu.	Hayu.	Lahuli.	Rajivaru.
Bodo.	Janjoh.	Lepcha or	Rajput.
Boksa.	Kahka.	Deun jong-	Rawat.
Bor.	Kanait.	maro.	Rongbo.
Chepaug.	Kanet.	Lhopa.	Serpa.
Chibh.	Khatir.	Limbu.	Sunwar.
Dafia.	Khombo.	Magar.	Thakaya.
Dahi or Dari.	Kichak.	Mewar.	Tharu.
Dardu.	Kiranti.	Miri.	Thumba.
Dhenwar.	Koch'h.	Mishmi.	Yakhu.
Dhimai.			

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In the Himalaya, the number of inhabited places is comparatively insignificant; while the population reaches its maximum in the rich belt of life rising from 3000 to 8000 feet, the traces of man and his dwelling-place begin rapidly to disappear at 11,000 feet, and even before.

In some provinces, especially in Nepal, Kamaon, and Garhwal, many villages are deserted in winter, though, as far as regards their elevation and the solid construction of the houses, they might very well be inhabited throughout the year. The natives, however, prefer removing to villages less elevated, where they spend the colder months. Chalets (Alpenhütten) are as little used in the Himalaya as tents in the Alps. The pasture grounds, Karik, for sheep and bovine cattle are for the most part in low elevations, and at no great distance from the village. In the frontier country bordering Tibet, herds of sheep and goats are used for the transport of merchandise. They are driven over the passes to Tibet, laden with grain (a full-grown sheep carrying about seven pounds), and return at the end of the summer with salt and borax.

Of the *sanatoria*, Simla is 7156 feet, Darjiling 6905, Mussoori 6849 feet, etc. They are at present confined to the outer ranges, at a distance of 40 or 50 miles from the foot of the mountains. Chini, a most salubrious place in Kanawar (9096 feet). Srinuggur, the capital of the valley of Kashmir (5146 feet).

Tigers ascend to 11,000 feet in the Himalaya; they are not, however, seen in Western Tibet, or the Kouen Lun. Leopards may be met with in the Himalaya and in Western Tibet even at 13,000 or 14,000 feet; on the Kedar-kanta (12,430 feet). The domestic cat is common in Tibet. Domestic animals, such as sheep, goats, tame yaks, horses, and dogs, follow man across the highest passes (18,000 feet), between Turkestan and Tibet the two-humped Bactrian camel even being used as a beast of burden. When without a load, no difficulty is experienced in bringing these camels even over the steeper passes of the Himalaya.

Jackals are found in the Kara-korum, between 16,000 and 17,000 feet. Hodgson mentions two species of foxes in Eastern Tibet. Wolves are not known to frequent the Himalaya proper, but they are found in Western Tibet, and close to the Kara-korum pass (18,345 feet).

The wild yak and the kiang, several species of wild sheep and goats, hares and mice, are found as high as 16,000 to 17,000 feet. The number of species of snakes and frogs rapidly decrease with height, but lizards remain nearly the same between 1000 to 15,000 feet.

Butterflies are found in the Himalaya to 18,000 feet, in Western Tibet and Turkestan even 16,000 feet, as localities of permanent habitation. The upper limit of mosquitoes is at about 8500 feet, and with the peepsa make themselves very troublesome in the Eastern Himalaya during the rainy season as high as 13,000 feet. As in the Alps, the new fields of the glaciers are often covered with the remains of insects carried up by the ascending current to 18,000 and even 19,000 feet.

Mountains are famed in the mythologies of many races. Mount Olympus was the fabled seat of the epic deities of Greece and Rome. Mount Sinai

MOUNT ABU.

was the mountain of legislation for the Hebrews. Govardhan is the mountain where the scenes of Krishna's reforming efforts are painted. The Bedouin Arabs take off their shoes when they enter the stone circle on the heights of Serbals, and the adjacent Jabal Munadshat is called by the Arabs the Hill of the Dialogue, viz. of Moses and Jehovah. Mount Meru, a fabulous Himalayan mountain, is supposed by Hindus to be the centre of the earth and the heaven of their Vedic god Indra. Mount Kailasa, or Gana Parvata, in the Himalaya, north of Lake Manasa, is the paradise of Siva and the abode of Kuvera. Vaikuntha or Vaibhra is the paradise of Vishnu, and is sometimes supposed to be on Mount Meru.

Five mountains are considered sacred by the Jains, viz. Girnar, Palitana, and Talijah in Saurashtra, near Deesa, and Sakar, about whose locality there exists much doubt; the Jains themselves speak of it as to the westward.—*Trelawney Saunders in Geog. Mag., July 1877; also Mountains and River Basins, Beng. As. Soc. Journ. See Passes.*

MOUNT ABU. The peaks which crown this mountain, according to Tod, are six. The most elevated is that of Gorakhnath, having on its summit an area of only ten feet in diameter, and surrounded by a shrine dedicated to Gorakhnath; each of the other peaks has its shrine. On a small table-land on the mountain, about 600 feet below its summit, is the ancient palace of Khengur and numerous Jain temples.

MOUNT ARAFAT, near Mecca, is visited by the pilgrims, as Muhammadans have a tradition that Adam, conducted by the angel Gabriel, here rejoined Eve, after a separation of 200 years, in consequence of their disobedience in Paradise, and from here he carried her to Ceylon.—*Catafago.*

MOUNT ARARAT. In the last volume of *Cosmos*, Humboldt records the height of Demavend at 19,715 feet, which is 1785 feet under the height attributed to it, and Ararat 17,112 feet high. The Ararat of modern geographers, in the province of Erivan, is the Mons Macis of the ancients. At a distance, it has a resemblance to a ship, and is called by the Persians, Mountain of Noah, Aghri-dagh being the name given to it by the Turks. Arabs call it Jabl-ul-Judi, and the Armenians Massis Sinsar, or Mountain of the Ark. All unite in revering it as the haven of the great ship which preserved Noah from the waters of the deluge. It was reported that some planks of the ark remained on this hill at the date of the accession of the Abbasside khalfs, A.D. 749, and the people still assert their presence.

MOUNT DILLI, a hill on the Malabar coast, a conspicuous headland, visible 24 to 27 miles at sea. The small fort on its outer extreme headland is in lat. 12° 2' N., and long. 75° 0' 30" E. The hill rises 850 feet above the sea. It is also called Yelli-pand. It was styled by Ptolemy Purrhus Mons, or Mountain of Paras Rama.

MOUNT EVEREST, 29,003 feet in height, lies to the west of Kanchinjanga, and is the highest mountain of the world at present known. According to the brothers Schlagentweit, the Nepalese call it Gaurisankar, but the Tibetans to the north call it Chingopanmari.

MOUNT GOVARDHAN, the Hindu Parnassus, is famed in the legends relating to Krishna. At

MOUNT MAHABAN.

the age of seven, he uplifted Govardhan on the tip of his little finger, to shelter the Gopa and Gopi from the wrath of Indra, the Jupiter Pluvius of the Hindu pantheon, who, enraged with jealousy at the diminution of his votaries and sacrifices, consequent on the adoration of Krishna, attempted to destroy them by a partial deluge. This story is represented in the *Mataya Purana*, whence Sir W. Jones introduced it in his hymn to Indra. The bard

. . . 'warbling in a softer mode,
Sang the red lightning, hail, and whelming rain,
O'er Gokal green, and Vraja's nymph-lov'd plain,
By Indra hurl'd, whose altars ne'er had glow'd
Since infant Krishna rul'd the rustic train
Now thrill'd with terror. Them, the heavenly child
Call'd, and with looks ambrosial smil'd:
Then, with one finger rear'd the vast Govardhan,
Beneath whose rocky burden,
On pastures dry, maids and herdsmen trod:
The lord of thunder felt a mightier god.'

In pictures of this miracle, Krishna is always represented as a man, attended by his favourite mistress Radha, and sometimes by a multitude of shepherds and shepherdesses; the former with poles, steadying the uplifted sheltering mountain, a shower of rain and fire falling vainly on its summit. The legend seems to mean that Krishna had departed from the Vedic worship of Indra, from which persecutions arose.

MOUNT HERMON, the modern Jabl-us-Shaikh, the southern parts of Anti-Libanus.

MOUNT IMAUS, the Koh-i-Kaf of the Persians, according to oriental cosmographers, surrounded the world; but since geography has made some progress in the east, the name has been confined to Mount Imaus to the east, and Mount Atlas to the west. Jan or genii, a race intermediate between angels and men, produced of fire, are supposed to have inhabited the earth for several ages before the birth of Adam, and to have been governed by kings, all of whom were called, Suleiman (Solomon). They fell into a general state of depravity, and were driven into remote places by Eblis (the fallen angel), and such as remained in the time of Kaiumeras, the first of the Pesadian dynasty of Persia, were by him driven to Mount Kaf.—*Journ. Ind. Arch. v. p. 548.*

MOUNT KAILAS. Here, according to Hindu mythology, lies the city of Kuvera, the Indian Plutus; also the habitation of the god Siva. It is the Kailas range or Gangri range of mountains in the N.W. Himalaya. The range has six passes, at heights from 15,000 to 18,105 feet. Kailas means crystalline or icy, and is possibly the source of the Latin, French, German, and Danish words for ice and glass,—glesum, glace, gler, glas, glass,—and is itself a compound term derived from Ke, water, and Las, to shine.

MOUNT LEBANON, a mountain in Palestine, occupied by the Druse race, who are likewise spread over the Hauran, S.E. of Damascus. Zahle, seven hours from Balbec, belongs to the Druse territory. Half an hour from Zahle, on the south side of the village of Kerak, is a tomb shown as that of Noah. In Lebanon, about 18 miles east of Tripoli, is the Maronite convent of Kozhaia, in which the monks exorcise demons.

MOUNT MAHABAN, or the Black Mountain, is supposed by some to be the Aornos of the Greeks. It is in the Pir Panjal, and is 40 miles

up the Indus from Attock. It is at least 50 miles in circuit, and from 7000 to 10,000 feet high. Aornos was fabled in the Greek camp to have thrice defied Heracles himself. See Khaibar; Mahaban.

MOUNT MANDAR, an isolated hill, visible from Bhagulpur on the Ganges, famed as a place of Hindu pilgrimage.

MOUNT MERU, in Hindu legends, a sacred mountain, supposed to have been in the N.W. Himalaya.

MOUNT NEBO. From the top of this, on their return from Egypt, the Israelites first beheld the land of promise, and there their illustrious leader breathed his last.—*Robinson's Tr.*

MOUNT OF OLIVES, a hill on the east of Jerusalem; its highest summit is 2400 feet above the level of the sea.

MOUNT OHOD, the burial-place of Aaron, is shown over the summit of Mount Hor.

MOUNT OPHIR, in lat. 0° 5' N., long. 100° E., on the west coast of Sumatra, 9459 feet above the sea. It is 24 miles inland, appears by itself like an obtuse cone separated from the chain of other mountains, and may be seen from a distance of 110 miles in clear weather.

MOUNT SINAI, on the eastern shore of the Gulf of Suez, 150 miles south of Suez, is famed in the history of the Hebrew nation as the district whence laws for their guidance were communicated to Moses, their leader. It is surrounded by desert, which the wandering Bedouins occupy. At the foot of the mountain is the Greek convent of St. Catherine, founded in 1331 by William Bowldesell, the monks of which are kept almost prisoners by the Bedouins. The Arabs call Sinai, Jabl-u-Tur. Dr. Beke supposes Mount Sinai to be the mountain called Barghir, which is also called Jabal-un-Nur or Mountain of Light, and that whereon the Almighty spoke with Moses.—*Burkhardt's Tr.*

MOUSTACHE. In British India, amongst Hindus and Muhammadans, passing the hand over the moustache is a signal both of defiance and self-gratulation.—*Tod's Rajasthan*, i. p. 353.

MOU-TAN. CHIN. The mou-tan or tree peony, *Pæonia moutan*, is abundant in China, and bears the title of hawang, or king of flowers. The skill of the Chinese gardeners has made many varieties. Tree peonies are brought in large quantities about the month of January from the northern provinces. They flower soon after they arrive, and are rapidly bought up by the Chinese to ornament their houses, after which they are thrown away, as they do not thrive well so far south as Canton or Macao, and will not flower a second season. They are sold according to the number of flower-buds they may have upon them, many of them fetching rather high prices.—*Williams' Middle Kingdom; Fortune's Wanderings.*

MOUZAH. ARAB. A village. Mouzadar, in Bengal, one of the village authorities.

MOWALI, a Bedouin tribe of the northern desert. They came from Hejaz, and their shaikh claims descent from the Abbassi khalifs. For 50 years the Shammar and the Mowali fought for the present Mowali district.

MOWAMARIA, Muttuck, or Moran, a tribe of Assam, subject to one chief, called Bar Senapati. They are Vaishnava Hindus.

MOW CHOK. CHIN. The most beautiful bamboo in the world, says Fortune. In the

Central and Eastern Provinces of China it is largely cultivated, particularly on the sides of mountains where the soil is rich, and in the vicinity of temples and other monastic buildings. Its stems are straight, smooth, and clean; the joints are small. It grows to the height of from 60 to 80 feet. 20 to 30 feet of the lower part of its stem are generally free from branches. These are produced on the upper portion of the tree. They are so light and feathery that they do not affect the cleanness of the main stem. It is therefore of great value in the arts, owing to the smoothness and fineness of its structure, and is used in the making of sieves for the rolling manipulation of tea, baskets of all kinds, ornamental inlaid works, and other purposes for which the bamboos of India are unsuitable. It perfects its growth in a few months. A healthy plant generally grows about 2 or 2½ feet in the 24 hours, and the greatest rate of growth is during the night. The young shoots, just as they peep out of the ground, are esteemed as food, split up, boiled, dished by themselves, used in soup like cabbage, and form an ingredient of an excellent omelette.

MOZAMBIQUE is a coral island, very low and narrow, and 1½ miles long, first seen by Vasco da Gama on the 1st March 1498. Alvares Cabral visited it in 1500, and Vasco da Gama returned to it in 1502, and in 1505 it was declared a Portuguese province.

MOZDAK, a pretended prophet in the time of Kobad of Persia, who preached the doctrine of a community of women and possessions.

MOZOME ANGAMI, a rude pagan tribe on the hills of Assam, on the eastern frontier of the Mikir and Cachar. See Naga.

MRICH'CHHA-KATI, or the Toy Cart, a drama in ten acts, by king Sudraka, supposed to have been written in the 1st or 2d century A.D., and to be the oldest Sanskrit drama extant. There are several editions of the text, and translations into French.—*Dowson.*

MRIG-SAL, or Mirg-sal, the husbandman or cultivator's year. It commences at the end of Vaisakh or beginning of Jyeshth (May—June), when the grain is sown.

MRIGUENA, or the Fawn-Eyed, a Gujarani princess who was married to Maun Singh, the great Tamara raja of Gwalior, in the beginning of the 16th century. The raja was fond of music, especially of the sankirna rag or mixed modes, of which Mriguen was a great genius. Four specimens of her composition are yet extant, and called after her name, Gujar, Bahul Gujar, Mal Gujar, and Mangal Gujar. It was supposed that the Hindu musician Tan Sen, attracted by her songs, went to Gwalior, where he is buried.

MRITTIKA, the earth deity of the Hindus, is worshipped in several forms. One of these is in the Nagapanchami festival, during which a snake of clay is worshipped; a second form is as the Gokul-ashtani, when a clay image of the infant Krishna is worshipped; and a third form is in the earth or clay figure of Ganesa, on the fourth of the month Bhadrapad, about the beginning of September, during which Ganesa is brought to the homes with much ceremony, and finally thrown into the sea or into water. Also, numerous temples are erected on the banks of the Ganges, in honour of the goddess Ganga, in which clay images are set up and worshipped.

MRITTYU. SANSK. Death, from Mri, to die. Mrityunjaya, vanquisher of death, a name of Siva, from Mrityu, death, and Jee, to overcome. Mrita-sanjivini, to restore to life.—*Dowson*.

MRU or **Tung Mru**, a tribe in the Koladyn valley. The number of the Mru in Arakan is about 2800. At one time a Mru chief was chosen king of Arakan, and the dominion was Mru when the Rakheng conqueror invaded the country. They seem of the same lineage as the Myamma. The Mru dwelt on the Koladyn river and its feeders, but, having been driven out by the Kami, now occupy hills on the border between Arakan and Chittagong, at the source of the Moree river, which disembogues in lat. 21° 40' N., south of Kutabudea Island.—*Dr. Latham's Ethnology*.

MRU, an arm of the sea in Arakan, from 3 to 4 miles broad at its mouth, and running inland more than 50 miles.—*Imp. Gaz.*

MRUNG of Arakan dwell with the Doing-Nuk in the upper basin of the Mayu, and also, it is said, amongst the hills on the eastern border of the Chittagong district. They are said to be the descendants of a race whom, several generations back, Arakan kings carried away from Tiperah, but also a colony imported from the Bodo country by the kings of Arakan, at the period when their conquests extended far up Eastern Bengal.

MTEPE. ARAB. A sailing ship of Zanzibar.

MU, in the weights of Burma, is the one-tenth part of a kyat or tikal.

MUALLAKAT. ARAB. Poetic pieces of the Arabs about the time of Mahomed, which they were accustomed to string together and suspend on the wall at the entrance of the Kaba. Those approved of were written in letters of gold.

MUANG, a race who inhabit the mountains on the west of the Tonquinese province of Than-Hoanoi, and stretch into China. They are an extension of the aboriginal or uncivilised Lau of Yun-nan. The name is the Burmese and Lau term for town or village which is scattered over so large a portion of the Chinese maps of Yun-nan, indicating the present limits of Lau in that province.

MUANG THAI is the kingdom of Siam, i.e. the land Thai. In their books it is found with this epithet, Krom Thep Pramna haa Ikoon (Circuitus visitationis Deorum), the circuit of the visitation of the gods. Malay and Peguans call it Tziam, from whence comes the European name Siam.—*Thun. Japan*, i. p. 25.

MUASI, a tribe of the Central Provinces of British India. Their chief objects of worship are the sun and the moon. They also worship at the shrine of Sultan Sakada, whom they suppose to have been a king among them in former times. The Muasi of Barar and in the western tributary estates of Chutia Nagpur worship Bhavani, a name of Durga, and Gansam or Ghanasyama.—*Dalton's Bengal*.

MUAWIYA, governor of Syria, was proclaimed khalif of Damascus, on which Ali declared war.

MUAZZAN, the servant of the Muhammadan mosques who calls the Azan or summons to prayers. The words of his summons are—

- i. Allahu Akbar, Allahu Akbar! God is most great! God is most great.
- ii. Ashhaduan la ilaha il Allahu, Ashhaduan la ilaha il Allahu; I bear witness there is no deity but God, I bear witness there is no deity but God.

iii. O ashaduanna Mahomed-ur-Rasul Allahe, O ashaduanna Mahomed-ur-Rasul Allahe; and I bear witness that Mahomed is the apostle of God, and I bear witness that Mahomed is the apostle of God.

iv. Hy-ul-us-salwat, Hy-ul-us-salwat; come to prayers.

v. Hy-ul-al-fallah, Hy-ul-al-fallah; come to security.

vi. Us-sallato-khair-un-min-nun-nowm, Us-sallato-khair-un-min-nun-nown; prayer is better than sleep.

vii. Allahu Akbar, Allahu Akbar! God is most great.

viii. La ilaha il Allahu, there is no deity but God.

MUBARAK. ARAB. Blessed. Mubarak bad, May it be blessed, a congratulatory salutation.

MUBARAK, father of Abul Fazl and Faizi. He is supposed to have been a native of Nagor, and had at one time taught a college or school of law and divinity at Agra. He was at first a Sunni, but turned Shia, and afterwards took to reading the philosophical works of the ancients, and became a freethinker, or, according to his enemies, an atheist. So great a persecution was raised against him on this account, that he was constrained to give up his school, and fly with his family from Agra. His sons Abul Fazl and Faizi conformed in all respects to the Muhammadan religion.—*Elph.* p. 468.

MUCHALKA. ARAB. A bond, a deed, a written obligation or agreement, a penal recognisance.

MUCHI, a Hindu caste, shoemakers, painters, bookbinders, saddlers, etc.

MUCHI-RAS. HIND. Gum from several plants,—Salmalia Malabarica and Moringa pterygosperma, also a gall from the Arca catechu.

MUCUNA, a genus of plants belonging to the order Fabaceae, climbing herbs or shrubs, with pinnately-trifoliate leaves and axillary racemes, which hang down when bearing fruit. Species of Mucuna produce the cowhage. In the East Indies are—

Mucuna atropurpurea, D.C., Courtallum, Konkan, Travancore.

M. bracteata, D.C., Chittagong.

M. capitata, W. and A., cultivated.

M. gigantea, D.C., Peninsula of India, Sunderbans.

M. hirsuta, W. and A., Pen. of India, Sunderbans.

M. imbricata, D.C., Sylhet.

M. monosperma, D.C., all British India.

M. novae, Buch., Bengal.

M. pruritas, Hook., S.E. Asia, Archipelago.

M. utilis, Wall., Australia, Mauritius.

Cowhage consists of the hairs found upon the pods of different species. They are exceedingly slender, brittle, and easily detached, and the fragments readily stick into the skin, and produce an intolerable itching; hence they are at times employed for mischievous purposes. Cow-itch is also used medicinally as a vermifuge, by being mixed with syrup till of the consistence of honey, and given in doses of two or three teaspoonfuls. The species are found in hedges, thickets, on the banks of rivers, and about watercourses, in the East and West Indies, and in America within the tropics. *M. urens* and *M. pruriens* usually furnish the substance; but that from *M. monosperma* is said to exceed the others in the irritating burning property of its hairs. Dr. Roxburgh states that *M. pruriens* was one of the plants formerly used in India to poison wells; but it is less hurtful than was supposed. *M. imbricata*, D.C., a climber of Darjiling, Terai, and Chanda. *M. utilis*, the Mauritius black bean, is cultivated in India and Ceylon.—*Roxb.; Voigt; Br. Par. Ex.* 1878.

MUCUNA ATROPURPUREA. D.C.

Carpogon atropurpureum, *Roxb.*

Gede dulagondi, . TEL. Tella kada, . . . TEL.
It has large dark purple flowers.

MUCUNA COCHIN-CHINENSIS. *Benth.*

Macranthus Coch., *Loureiro*, a climbing plant;
pods cooked as vegetables, like kidney beans.—
Johnson.

MUCUNA GIGANTEA. D.C.

Dolichos giganteum, <i>Willd.</i>	Stizolobium giganteum,
Carpogon giganteum, <i>R.</i>	<i>Spring.</i>
Kakavalli, . . . MALEAL.	Pedda dulagondi, . TEL.
Enuga-dulagondi, . TEL.	

This climbing plant grows on the coasts of
Peninsular India. It is employed in medicine.

MUCUNA PRURITA. *Hook. W. and A.*

Carpogon pruriens, *Roxb.* | Dolichos pruriens, *Roxb.* |
Mucuna pruriens, *Wall.* |

Alkushi, . . . BENG.	Gunch-gaji, . . . PANJ.
Khwa-le, . . . BURM.	Copikachu, . . . SANSK.
Kanoh kuri, . . . DUKH.	Atmagapta, . . . "
Kiwaoh, . . . HIND.	Puna-kali, . . . TAM.
Nai karana, . . . MALEAL.	Pillia-dughu-kala, . TEL.
Kanausha, . . . PANJ.	Dulagondi, . . . "

Grows all over British India and in the Moluccas.
It has large purple flowers. Sir W. Hooker distinguished the E. Indian plant *M. prurita* from *M. pruriens*, which is indigenous in the West Indies. The pods when ripe are of a brownish colour, and covered with innumerable sharp prickly-like hairs, which penetrate into and irritate the skin. The strigose hairs, as well as those of *Rottlera tinctoria*, are used in India as an anthelmintic. They dispel lumbrici and ascarides by sticking into their bodies, when pressed against the intestines, and thus irritating and dislodging them. The pods being dipped into treacle or honey, have the hairs scraped off until they have the consistency of an electuary, when a tablespoonful may be given to adults, and a teaspoonful to children, followed by a purgative of castor-oil, etc. They have been applied externally for paralysis, and produce much itching.—*Roxb.; Voigt; Powell; Royle; O'Sh.; Ains.*

MUCUNDA. During the lifetime of the emperor Akbar, many Hindus believed him to have been a Hindu in a former birth; that he enclosed in his body the soul of a devout Brahman, who had in a past age borne the name of Mucunda, and had taken a fancy to become the emperor of India. In nine months after Mucunda's death, he was permitted to generate in the womb of sultana Hamida Banu, and to take his birth at Amerkot in the character of Akbar. Indeed, there were some grounds for the Hindus to claim Akbar as a prince of their race. That emperor had a Hindu wife, the princess Jodh Bai; had a Hindu daughter-in-law, the Marwari wife of Jahangir; had a Hindu general, the raja Mau Singh; had a Hindu financier, the raja Todar Mull; had a Hindu favourite, the raja Beerbul; had a Hindu songster, Tansen; had many Hindu officers and Hindu pandits always about him; much in his court savoured of the Hindu, and he had in a manner Hinduized himself by his ardent devotedness to the cause of Hindu welfare.—*Tr. of Hind. i. p. 311.*

MUDALI. Tam. Mudliar, plural. Literally, first man, first men, honorific terms applied usually to the men of the Vallalar or agricultural race amongst the Tamil people. The term Pillai is

similarly applied to the Idayan or shepherd race dwelling in the Tamil country. It is generally used in the plural form of Mudliar; it is also conceded to the Kucheler, a weaver race of the Madras Presidency. It is an official designation in Ceylon, seemingly similar to the Mandal, village headman of Bengal.

MUDANI, a Muhammadan sect founded by Mudan, a Sufi. They admit the divine mission of Mahomed, but disclaim his title to particular veneration. The Mudani go nearly naked, braiding the hair and smearing the body with ashes, and wearing iron chains round their waists and necks.

MUDAR. HIND. *Calotropis gigantea*, the gigantic swallow-wort, a plant which is widely diffused throughout the Southern Provinces of the Peninsula of India, where it grows wild, preferring poor soil near the sea. It is replaced in the Bellary district by *C. procera*, which is equally common, and in Northern India by *C. Hamiltonii*. To obtain the fibre, the branches are gathered and dried in the sun from twenty-four to thirty-six hours, then they are taken up, the bark peeled from the woody parts, and the fibres gathered. If placed out in the dew for a night, they lose their greenish tint, and become white. The sap of the Mudar plant is applied externally as a rubefacient; dried, it is mixed with caoutchouc. See Madar.

MUDARI, an order of the fakirs or darvesh of India.

MUDAWIR. ARAB. A circle, implying repetition, from the Arabic word Daur.

MUD BAY or Muddy Bay is the commercial port of Alleppie, in Travancore, 36 miles S. of Cochin, remarkable for the singular natural break-water formed in the open sea, consisting of a long and wide bank of mud, the effect of which is so completely to break the waves, that ships of all sizes can securely anchor even at the stormiest season of the year in the open roads, where the water is perfectly calm. The origin of this deposition of mud has never been satisfactorily accounted for. It imparts a dirty colour to the water, and makes it thick and slimy. It has shifted within the last century, but not to any great extent. A similar deposit exists at Nar-rakul, about 29 miles north of Cochin, and the advantage of this latter place, as a natural open harbour for shipping, has been brought to the notice of the British Government.—*H. D.*

MUDDIKPOR, Kili-katr, or Kotaboo, are wandering minstrels. Other names have been given to this people who dwell in the Southern Mahratta country. Kablgira or ferryman, Koli and Barkur, are the terms most usually employed, but Muddikpor is the designation they apply to themselves. They are generally tall and powerful men, with an olive-yellow complexion, and are numerous throughout that part of India; they say that their original locality was the village of Talicot, near the town of Shorapur, and that all classes speak the Mahratta tongue.

MUDHOL, a Native State in the Southern Mahratta country, lying between lat. 16° 6' 50" and 16° 26' 45" N., and between long. 75° 4' 21" and 75° 31' 56" E. The Mudhol chiefs were of the Ghorpara family; they were the most determined opponents of Sivaji during his early conquests, but on the overthrow of the Muham-

madan power; they joined the Mahrattas, and accepted military command from the Peshwa. The chief enjoys an estimated gross yearly revenue of £14,647, and pays a tribute of £217 to the British Government.—*Imp. Gaz.*

MUDKI or Moodkee, a village in the Ferozpur district, Panjab, memorable for a battle fought on 18th December 1845, between the Sikhs and the British. It is in lat. $30^{\circ} 47' N.$, and long. $74^{\circ} 55' 15'' E.$, on a plain 26 miles south of the Sutlej. Two days before the battle, which inaugurated the first Sikh war, the enemy crossed the boundary river at Ferozpur. They were met by a much smaller British force at Mudki, and driven from their position, with the loss of 17 guns, after a hard contest, in which the British lost a large proportion of officers. Monuments have been erected on the battlefield in honour of those who fell.—*Imp. Gaz.*

MUDRA. **HIND.** A round prickly seed worn by the Hindu ascetics in ear-rings. The Kan Phatta Jogi wear a large metal ear-ring.

MUDRA. **SANSK.** A position of the hands amongst Buddhists and Hindus in attitudes of teaching. Ait-mudra is the attitude of bestowing a blessing. Bhumisparsha-mudra is the attitude of the hand pointing to the earth; Jnana mudra, the attitude of abstraction; Dharma chakra mudra, the attitude of teaching.

MUDRA RAKSHASA, or Signet of the Minister, a Sanskrit drama by Visakha Datta, perhaps of the 11th or 12th century A.D. The events dramatized relate to the history of Chandragupta, the Sandracottus of the Greeks. Rakshasa was the minister of Nanda, and afterwards of Chandragupta. In one scene Viradha Gupta visits Rakshasa, and a conversation ensues which relates to historical events—

Rak. What news from Pashpapur?

Vir. I have not much to tell, sir; where shall I commence?

Rak. With Chandragupta's entry in the city
What'er my agents since have done, inform me.

Vir. You will remember, sir, when in close league,
United by Chanakya, Parvateswara
And Chandragupta in alliance, led
Their force against our city,—a wild multi-
tude

Of Sakas, Yavanas, and mountaineers,
The fierce Kambojas, with the tribes who
dwell

Beyond the western streams, and Persia's
hosts

Poured on us like a deluge . . .'

In the Mudra Rakshasa, Chandragupta is frequently named Vrishala, a term said to be equivalent to Sudra; and Nanda himself was the son of a Sudra woman. There can be little doubt that the celebrated Maurya family were of Sudra extraction.

MUFASSAL. **ARAB., HIND.** In Hindustan, a subordinate or separate district, the provinces or stations in the interior of the country, in contradistinction to the sadr or principal station or town. All outside of Calcutta, Madras, or Bombay is mufassal.—*IV.*

MUFTI. In British India, an officer of a law court, from Fatwa, **ARAB.**, a sentence.

MUGA. **HIND.** One of the silk-worm moths of British India. The two principal indigenous varieties of silk are the muga and the eri. A dress made of muga silk is prized beyond all

others by the Assamese. A plant grows wild in the southern part of the Chittagong district, on which the moth lives.

MUGGAR-TALAO, crocodile ponds, lie to the north-west of Kurachee, also known as Magar Pir and Pir Mangho. The greater pond is about 800 yards in circumference, and contains many little grassy islands, on which the majority of the crocodiles (*Crocodilus palustris*) bask; some are seen asleep on its slimy sides, other half-submerged in the muddy water, while now and then a huge monster raises himself upon his diminutive legs, and, waddling for a few paces, falls flat on his belly. The water in the pool feels cold, although fed from two hot springs, one of which has too high a temperature to retain the hand in it; yet animal life exists; for where the water bubbles up from its sandy bottom, and in the little lake running to the tank, is an abundance of a small black spiral shell, very like *Melania pyramis*, an allied species of which frequents the river Jordan. The crocodiles dig deep in the sand under the neighbouring date trees and there deposit their eggs. Quantities of deciduous teeth of various sizes are strewn along the slimy sides of the pond. A guide, taking piece after piece of flesh, dashed it on the bank, uttering a low growling sound, at which the whole tank became in motion, and crocodiles splashed through the shallow water, struggling which should seize the prize. The shore was literally covered with scaly monsters, snapping their jaws at one another. They seize their food with the side of the mouth, and toss the head backward, in order that it may fall into the throat.—*Adams.*

MUGH. **PERS.** A follower of Zoroaster, a fire-worshipper, applied by the Arabs and Muhammadans similarly to Gabr (Guebre) and Kafir. The term is applied by the people of Bengal to all the Arakanese, and to a race in the Chittagong district, who call themselves Rajbansi in Bengali, and Myan-ma-gyee or Great Myan-ma in Burmese, doubtless offspring of Bengali women by Burmese; their dress and language is Bengali, but some are of Buddhist faith. This race form six-tenths of the native population of Arakan, one-tenth being Burmese, and the remainder Hindu. Professor H. H. Wilson says the term Mugh, which the British have given to the Arakanese, by that people is restricted to the descendants of Arakanese by Bengali mothers. Colonel Dalton says that in personal appearance the Mugh resemble the Chinese; the cheek-bone is high and broad, the nose flat, and the eyes oblique. Though short, they are a well-made people, hardy, muscular, and athletic. The hair both of men and women is generally very beautiful, and of a glossy black; both sexes pride themselves on its fine quality. The dress of the women consists of a cloth tightly bound round the bosom, and flowing to the feet, and a large outer dress thrown over the whole person, and reaching to the knees. The unmarried women wear a jacket, which is assumed by girls when marriageable, and abandoned when they become wives. It is again adopted upon widowhood. The dress of the men is composed of a cloth round the middle, and one thrown over the shoulders. Although somewhat slothful in disposition, they are very fond of hunting, and delight in manly exercises, such as wrestling and boxing, and a game peculiar to

the country called Kilome, which is somewhat similar to battledore and shuttlecock, only instead of the hands the feet are employed. They are very partial to boat-racing.—*Wilson's Glossary; Dalton's Ethnol. of Bengal*, p. 111.

MUGHSI or Maghazzi have been noticed under the latter spelling at p. 767, *q.v.* The Rind are settled in Cutch Gandava, to which fertile plain they have emigrated at different periods from the province of Mekran, and have become incorporated with the Jat or cultivators of the soil, as the subjects of the Khan of Kalat; a few likewise reside in the hills to the N.E. of Cutch Gandava and skirts of the deserts north of Kalat. The subdivision of the Brahui tribes amount to about ten, and those of the Rind and Mughsi each amount to double that number.

MUGIL, the mullet genus of fish, belonging to the Mugilidae of the order Acanthopterygii; about 34 species are known in the seas of the south and east of Asia. A species of mullet is very common in Tenasserim, and is often seen on the tables of Europeans, by whom it is highly esteemed.

Mugil cephalotus, *Cuv. and Val.*

Mugil our, <i>Forakal.</i>	Sole bhauggan, <i>Ham.</i>
M. cephalus, <i>Russell.</i>	Jumpul, . . . MALAY.
Boutali, <i>TAM., Russell.</i>	

Total length, 2 feet. It inhabits Penang, Malayan Peninsula, Singapore, Macao, Lancavy, Chusan, Madura, Coromandel, Bay of Bengal, Gangetic estuaries, Malabar. The air-vessel is large, elongated; its parietes very thin, pearl-coloured. *M. corsula* is a fish of the Bay of Bengal. It is a surface swimmer. See Mullet.

MUGUT, also Kirita, also Toop. SANSK. Terms for the high cap figured on the head of Vishnu as Narayana.

MUHAMMERAH is situated near the junction of the Jerahi or Tab with the Karun river. It affords vessels sailing up the Persian Gulf facilities for landing goods without going on to Basra, which lies higher up the stream of the Shatt-ul-Arab. See Mahamira.

MUHAQQIQ. ARAB. A very learned doctor in one or two sciences.

MUHAR or Muhr. HIND., PERS. A seal, a gold coin of value 16 rupees.—*W.*

MUHARRAM. ARAB. Sacred, unlawful, prohibited. The first month of the Muhammadan year, in which it was held unlawful to make war. Among the Shiah Muhammadaus this month is held in peculiar veneration, as being the month in which Hasan and Husain, the sons of Ali, were killed. Their deaths are the subject of public mourning during the first ten days, when fasting and self-denial are also enjoined. The educated of the Sunni Muhammadaus also regard these days as days for solemn thoughts. The uneducated regard the period as a time for a carnival. See Ali.

MUHTAJ. In the Parsee religion, on the 26th day of the 12th month, the Muhtaj commences; the souls of deceased relatives revisit the houses of their descendants. Four or five days before, all the house is cleaned with water and whitewashed, and on the 25th day one room is purified and set apart, a white sheet is put on the ceiling, flowers and fruits are put in pure water in vessels, prayers offered, and a fire lit there by the Mobeds. This is continued for ten days, after which the room

is closed for four days and re-opened for a two days' repetition of the cleaning till the Khordad sal, at the dawn of which the souls of the departed take flight to their original dwelling-place.

MUIN - ud - DIN, CHISHTI, who is buried at Ajmir, was born A.D. 1142, died A.D. 1236, aged 97 lunar years. The inside of his mausoleum is magnificent yet solemn.

MUIR, JOHN, C.I.E., D.C.L., LL.D., Ph.D., a Bengal Civil Servant, an eminent Sanskrit scholar, author and translator of many Sanskrit writings. In 1879 he published *Metrical Translations from Sanskrit Writers*, with an introduction, *Prose Versions, and Parallel Passages from Classical Authors*; and he had previously published a small volume of *Religious and Moral Sentiments metricaly rendered from Sanskrit*. In 1831 he put forth the first part of his *Christa Sangita or Life of Christ*, in Sanskrit verse. After completing this work, which excited much curiosity and gained considerable favour among learned Hindus, he followed it up with a *Life of St. Paul*. Then he published the *Mata Pariksha or Examination of Religions*, which set forth a sketch of the argument for Christianity, and combated some of the leading points of Hinduism. These were all composed in verse,—in the form most familiar to Brahmans. The last of them excited so much interest as to call forth some replies. All of these have been reproduced in the vernacular languages. Amongst his other works may be mentioned *Arguments for Christianity*, 1839; *Missionary Operations in Northern India*, 1852; *Reasons for a Sanskrit Chair*, 1860; *Original Sanskrit Texts*, 1858, 1868. In 1862, he founded the Chair of Sanskrit and Comparative Philology in the Edinburgh University, and he instituted the Muir Lectures on Comparative Religion.

MUIR, SIR WILLIAM, K.C.S.I., LL.D. of the Universities of Edinburgh and Glasgow, and D.C.L. of Oxford, born 27th April 1819, a Bengal Civil Servant of the middle of the 19th century, 1837–1876, who held the high offices of Foreign Secretary to Government, Member of the Council of the Governor-General, Lieutenant-Governor N.W. Provinces, and Financial Minister of India, and afterwards a member of the Council of H.M. Secretary of State for India. Author of *Life of Mahomed and History of Islam*, 1858 and 1877; *The Early Caliphate and Rise of Islam*, 1881; *The Koran, its Composition and Teaching*, and the Testimony it bears to the Holy Scriptures, 1877; *Extracts from the Koran, with English Renderings*, 1880; *Rise and Decline of Islam*, 1882–1883. In 1882, he translated from the Arabic, the *Apology for Christianity* by Abd-ul-Masih ibn Ishaq-al-Kindi; *Annals of the Early Caliphate from Original Sources*, 1883.

MUJALLIBAH, also called Maklouba, ruins on the east or left bank of the Euphrates, $4\frac{1}{2}$ miles N.N.W. from the bridge of Hillah, and $1\frac{1}{2}$ N. of the Amram Hill. Maklouba means overturned. The Mujallibah is a solid quadrangular mound, the sides of which face the cardinal points. Its height is not more than 90 or 100 feet in the loftiest part; but Sir R. Porter assigns to it that of 140 feet. It is called by the natives El-Mujallibah, the overturned; also Haroot and Maroot, from a tradition handed down, with little deviation, from time immemorial. This solid mound is regarded as the remains of the tower of Babel, an opinion

adopted by Major Rennell. Near the Mujallibah, and to the south of it, are remains of the Kasr, as well as those of the hanging gardens; and at rather more than six miles from Hillah, standing amidst and crowning the summit of extensive masses of ruin, is the Birs or Bars Nimrud. This has been considered by Niebuhr, Rich, and others to be the celebrated temple of Belus, and, according to Herodotus, it was separated from the palace by the river (lib. i. clxxx.): L'un (des quartiers) est remarquable par le palais du roi, et l'autre par le lieu consacré à Jupiter Belus. The Kasr ruins near Hillah are 750 yards from Amram Hill. Still farther south is the hill of Amram; a more extensive, though less lofty mass than the last, which must comprise the relics of many and important edifices. To the E.N.E., at the distance of six miles from the Mujallibah, is an insulated and lofty conical mound, named Al-Heimer; and, lastly, a considerable conical mound, called the Tuebo, and by some considered to be the N.E. angle of the ancient city, stands about 15 miles to the north of those just enumerated. There are, besides, a vast number of inferior heaps, some of which indicate the courses of canals that irrigated the country, or supplied distant quarters of the city with water, and some are the remains of ramparts which probably enclosed and defended the principal edifices.—*Rennell; Mignan's Tr.; Herodotus.*

MUJAWAR, a servant who attends the tomb, hermitage, or spot consecrated to a Muhammadan saint or person of rank.

MUJIL, a Persian version of an Arabic translation from Sanskrit, written in the year 1026 A.D., by Abul Hasan of Jorjan, near the Caspian. It gives a description of the Maldives.

MUJOUS. PERS. The priests of the Persians, from Mugh, an infidel priest; generally applied to the priests of the Zoroastrian Guebres, but sometimes to Christians. This word is sometimes used in Persian poetry to signify a tavern-keeper. This is, however, only a metaphorical application of the term.—*Malcolm's Persia*, i. p. 200.

MUJZUB or Majzub. ARAB. Lit. abstracted, a class of fakirs.

MUKADDAM. ARAB. A chief, a leader, the headman of a village, the superintendent of a gang.

MUKAT, a tinsel crown worn at weddings. See *Mor*; *Mugut*.

MUKAVAN. MAL. A tribe of fishermen in Malabar. See *Mukkawa*.

MUKESH. HIND. Gold wire flattened for embroidery of a heavy kind. Mukesh bati-hui, twisted tinsel. Mukesh gokru, waved mukesh, made by crimping mukesh bati-hui with iron tongs. Mukesh-ki-tand, wire for making mukesh.

MUKHASA, a portion of land or a village assigned to an individual, either rent-free or at a low quit-rent, on condition of service, or for service rendered. Mukhasadar, one holding a mukhasa.

MUKHIA, in Bengal, one of the village authorities; also a comptroller, appointed to collect tribute to Hindu idols. Such sacred offerings were held in high estimation by the nations of antiquity. Herodotus observes that these were transmitted from the remotest nations of Scythia to Delos in Greece; but that range is far less extensive than the offerings to the dewal or temple

of Krishna in Mewar. Tod relates that in his time the spices of the isles of the Indian Archipelago; the balmy spoils of Araby the Blest; the nard or frankincense of Tartary; the raisins and pistachios of Persia; every variety of saccharine preparation, from the sacarcand (sugar-candy) of the Celestial Empire, with which the god sweetens his evening repast, to that more common sort which enters into the pera of Mathura, the food of his infancy; the shawls of Kashmir, the silks of Bengal, the scarfs of Benares, the brocades of Gujerat,

'the flower and choice

Of many provinces from bound to bound,'

—all contribute to enrich the shrine of Nat'hdwara in Mewar. But it is with the votaries of the maritime provinces of India that he has most reason to be satisfied; in the commercial cities of Surat, Cambay, Muscat, Mandavi, etc. etc., the Mukhia or comptrollers deputed by the high priest reside to collect the benefactions, and transmit them as occasion requires. A deputy resides on the part of the high priest at Multan, who invests the distant worshippers with the initiative cordon and necklace. Even from Samarcand the pilgrims repair with their offerings; and a sum, seldom less than 10,000 rupees, is annually transmitted by the votaries from the Arabian ports of Muscat, Mocha, and Jedda, which contribution is probably augmented not only by the votaries who dwell at the mouths of the Volga, but by the Samoyede of Siberia. There is not a petty retailer professing the Vishnu creed who does not carry a tithe of his trade to the stores; and thus caravans of 30 and 40 cars, double-yoked, pass twice or thrice annually by the upper road to Nat'hdwara. These pious bounties are not allowed to moulder in the bindar: the apparel is distributed with a liberal hand as the gift of the deity to those who evince their devotion; and the edibles enter daily into the various food prepared at the shrine.—*Tod's Rajasthan*, i. p. 527.

MUKHTAR. ARAB. An agent, an attorney. Mukhtar nama, a power of attorney.

MUKKAWA, a race in Travancore, supposed to have immigrated from Ceylon. A tribe of fishermen in Malabar; those of North Malabar follow the rule of descent a matrice, but those in the south permit of descent of property to sons.

MUKNA. HIND. An elephant without tusks.

MUKSHA, SANSK., from Mooch, to liberate. The Hindu theologic opinion, known as nirvana, is one species of muksha or liberation, as koivulya is another; they both mean absorption, excluding every idea of separate identity.—*Ward's Hindoos*, iv. p. 364.

MUKTAD, a Parsee ceremony in honour of the dead, performed at the end of the Parsee year, before a pile of metal vessels filled with water, and raised from the ground on iron stools.

MULA, in Mysore, a rain commencing between 12th-26th December. Cumin, coriandar, tobacco, and other seeds are sown at this time.

MULA, a river of Baluchistan, about 150 miles long, rises a few miles south of Kalat, runs south-easterly about 80 miles, north-easterly, and easterly, and is ultimately absorbed in the desert of Shikarpur. Along its course winds the Mula pass or Gandava pass of Cutch Gandava, from lat. 28° 10' to 28° 24' N., and long. 66° 12' to 67° 27' E. It is about 100 miles long; it has open spaces

connected by defiles. Bapow is 5250 feet; Pesse Bhot, 4600; Nurd, 2850; Bent-i-Jah, 1850; Kullar, 750 feet. Descent, 4650 feet; average, 46 feet per mile. Water abundant. It is practicable for artillery. In 1839, a British-Indian detachment marched through it. It is preferable to the Bolan pass in a military point of view, and it is the southern pass by which access is gained from Cutch Gandava to the table-land of Jhalawan. It has three entrances—(1) at Pir Chatta, 9 miles from Kotri; (2) the Taphoi entrance leading from Jhal, 9 miles south of Kotri; and (3) the Gatti entrance, a very difficult road.

MULA, pronounced properly Maula, a judge, the magistrate of a large city, hence the word Maulawi or Maulvi, judicial, belonging to a judge or magistrate, but applied in India to a Muhammadan learned in Arabic. It takes the place of Alim, plural Ulema, of the Turks. In Egypt, the Ulema and men of religion and letters in general wear a turband particularly wide and formal, called a mukleh. El-Melik-el-Ashraf-Shaaban, a sultan of Egypt (A.D. 1362-1376), was the first who ordered the sherifs (or descendants of the prophet) to distinguish themselves by the green turband and dress. In Egypt these descendants are addressed as Sherif, noble, and Seyd or Seyyid (master or lord), whatever be his station. Another word is Maulana, Maulana as Sultan, our lord the Sultan. Maulana Jalal-ud-Din-er Rumi, founder of the Mawlawi darveshes.

MULA ABDUL KADIR, BADAUNI, also called Kadiri, was the author of the Muntakhab-ut-Tawarikh, also known as the Tarikh-i-Badauni. It is a general history of India from the time of the Ghaznavides to the fortieth year of Akbar's reign, and notices Akbar in a prevalent tone of censure and disparagement. He was born at Badaun A.H. 947 or 949. He was an eminently pious man, and excelled in music, history, and astronomy.

MULA KHEL, a section of the Orakzai clan on the outer spurs of the Samanagarh, S.W. of Hangu. They could muster 700 fighting men.—*H. A., N. W. F. p. 496.*

MULANA AHMAD, with other writers, were authors of the Tarikh-i-Alfi. He was also author of the Khulasat-ul-Hayat, the Essence of Life (A.H. 990), and was son of the Kazi of Tatta. It was finished A.H. 1000; hence its name Alfi.

MULA ZAKKI, the founder of a school of philosophy whose followers, in the early part of the 19th century, when Mountstuart Elphinstone visited Kābul, were said to take the full advantage of their release from the fear of hell and the awe of a Supreme Being, and to be dissolute and unprincipled profligates.—*Elphinstone's Caubul.*

MULBERRY.

Mure, FR. | Tut, HIND.
Maul-beere, GER. | Mora, IT., SP.

Species of the *Morus* or mulberry trees and their fruit. In the Panjab there are red and white mulberries, and two sorts of each colour; one is a small oval, being rather sweet, but a most miserable fruit. The other, called shahtut, is a very long, narrow fruit, looking almost like a caterpillar, either greenish-yellow or red-black in colour; this fruit is somewhat better than the first kind; it is very sweet, but has no flavour. The shahtut, or royal mulberry of Kashmir, is a fine large subacid fruit; it is dried and made

into flour; the bread from it is nutritious and fattening. The hill mulberry, or kinu, is the *Morus serrata*.

Tut or karun is the *Morus Indica*, a tree of fast growth, attaining its full size in 20 years, when it becomes useful.

The leaves of the red and white mulberry trees form the food of the *Bombyx mori*, yielding the silk of commerce. The Philippine mulberry is the *Morus multicaulis* of botanists. In Birbhum, mulberry gardens are innumerable, dotting the country in patches of a dark-green colour.

The white species in China bears but little fruit. The Chinese recommend the dung of fowls and ducks as a manure to produce abundant foliage for silk-worms. Species of mulberry have been cultivated for long ages in China. *Morus Indica*, *M. atropurpurea*, *M. rubra*, *M. alba*, *M. tartarica*, and *M. nigra* are all grown, and many varieties have been produced by cultivation, such as the hill mulberry, the golden mulberry, and the fowl mulberry.

Mulberry trees constitute the wealth of the Druse, Maronite, Mutawali, Ansari, and other tribes of Syria.

In the United States of America it is considered that an acre should support 700 to 1000 trees, producing when four years old, 5000 lbs. of leaves fit for silk-worm food. On this quantity of leaves, 140,000 worms can be reared, from which eggs at a net profit ranging from £80 to £240 per acre will be obtained by the work of one person. Mulberry trees have been largely cultivated in California; in 1870, to 7 or 8 millions, and in one year £700 were cleared from 3½ acres, the working expenses having been £90.

Mulberry bark, the Sang-ken-peh-p' of the Chinese; a silky fibre is extracted from the bark.

Mulberry epiphyte. Sang-shang-ki-sang, CHIN. An epiphyte so called grows on the mulberry trees of China, the woody branches of which are highly prized by the Chinese, and highly adulterated in consequence.

Mulberry paper. Pi-chi, CHIN.—*Smith, M. M. Ch.; Von Mueller.*

MULE. The Chinese possess a handsome and docile race, mostly like the mule of Egypt, but some resembling the dim-coloured breed of the Volterra. Mules seldom go so few as 30 miles in a day. They will carry a load of about 3 cwt., passing over such kotals or passes as would appal even a Spanish muleteer.

MULI or Moola. HIND. A radish, *Raphanus sativus*; any root. To call a Muhammadan a garden root, as Tum kon si bagh ki mooli ho? What garden root are you? is very offensive.

MULK. ARAB. A kingdom, the third title amongst Indian Muhammadans, as Saraj-ul-Mulk, Sharf-ul-Mulk, Mukhtar-ul-Mulk.

MULLAI. MAHR. Rich ground along the banks of some rivers, formed by alluvial deposits a field of garden or meadow land.

MULLAVELLY, a town in the Masulipatam collectorate. It is a diamond locality, and the Hyderabad Government reserved it when ceding the Northern Circars. Sandstone conglomerate extends from Banaganapilly to Condapilly and Mullavelly, in all which localities diamonds are found. See Diamonds.

MULLER. Frederick Max-Müller, Member of the Institute of France, Knight of the Order

pour le Mérite, Member of the Reale Accademia del Lincei of Rome, and I.L.D. of Cambridge and Edinburgh, is a learned German who settled in England. He was born on the 6th December 1823 at Dessau, the capital of the small Duchy of Anhalt Dessau. His father was Wilhelm Müller, a celebrated poet of Germany. In 1843 he took the degree of Ph.D. at the University of Leipzig, after which, in 1845, he went to Paris, and in 1846 to England. He undertook to superintend the printing of the Rig Veda at the charge of the E. I. Company, at Oxford, where he held the Chairs of Taylorian Professor of European Languages (1850 and 1854), Comparative Philology (1868). In 1844 he translated the Hitopadesa into German, and printed it at Leipzig, which he translated and republished in London. In 1847 he translated Kalidasa's poem, the Megha-duta, from the German into English. In 1847 he read an essay on the Relations of the Bengali to the Aryan and Aboriginal Languages of India. In 1853 he wrote to Chevalier Bunsen a letter on the Classification of the Turanian Languages. In 1854 he submitted proposals for a missionary alphabet; in 1859 the History of Ancient Sanskrit Literature; in 1861, 1864, and 1873, Lectures on the Science of Language, which up to 1878 had gone through nine editions, and have been translated into French, German, Italian, and Russian; and his Science of Religion, False Analogies in Comparative Philology, and the Philosophy of Mythology, have also been translated into the principal Continental languages. His Chips from a German Workshop, and Sayana-charya's Commentary on the Rig Veda, Lectures on Missions, have also been translated; and he undertook to edit The Sacred Books of the East, of which, up to the end of 1884, 24 volumes have appeared. In 1873 he delivered, in Westminster Abbey, a lecture on the Religions of the World; in 1878, in the Chapter House of Westminster, he gave a course of lectures on the Origin and Growth of Religion, as illustrated by the Religions of India; in 1882 he lectured on India, at Cambridge College. In 1880 and 1881, with the help of Sanskrit manuscripts from Japan, he published the Sanskrit text of several Buddhist texts; his principal essays have been collected in his four volumes of Chips from a German Workshop and two volumes of Selected Essays. His published works have been numerous beyond those of any writer of his time, and have chiefly relation to the races and literature of India and Southern and Eastern Asia.—*The Leisure Hour*, July 1878.

MULLET FISH, Mugil, sp.

Arabi mutchi, Дука. | Puthin, HIND.

The mullets spawn largely in estuaries, and apparently nowhere else. The seer, *Cybrium Commersonii*, seems to spawn very near the mouths of the estuaries, while others appear to ascend nearly as high as the tidal influence for the purpose. The mullet lives largely on shrimps and sand-worms. A small plot of some 4 or 5 acres in the Mangalore backwaters was therefore buoyed off to be left undisturbed for shrimps to breed in. The Tenasserim seas have large-eyed mullet, valuable for the table, and common in Calcutta, but distinguished by its small head, smaller scales, and goggle eyes, which appear to be starting out of its head. Mugil subviridis, Valenciennes, a small mullet often found in great

numbers in the river near Moulmein; many of the Burmese regard it as the young of *M. cephalotus*, but it is a distinct species.—*Ainslie*; *Mason*; *Thomas*. See Mugil.

MULTAN, a city in the Panjab, which gives its name to a revenue division and district. The city is in lat. 30° 12' N., and long. 71° 30' 45" E., and is now 4 miles from the present left bank of the Chenab. Cunningham thinks it is the Kas-yapapura of Ptolemy, and that it was situated on the bank of the Ravi in the 2d century A.D.

At the capture of Multan by Chach, in the middle of the 7th century, the waters of the Ravi were still flowing under the walls of the fortress; but in A.D. 713, when the citadel was besieged by Muhammad-bin-Kasim, it is stated by Biladuri that the city was supplied with water by a stream flowing from the river. Muhammad cut off the water, and the inhabitants, pressed by thirst, surrendered at discretion.

The population in 1881 was 68,674. Multan division lies between lat. 29° 1' and 32° 4' N., and between long. 70° 33' and 74° 10' 30" E., and comprises the four districts of Multan, Jhang, Montgomery, and Muzaffargarh. The Multan district is, on the whole, an arid, sandy country, about 110 miles in length, and 70 in its greatest breadth. Multan town has had its name repeatedly changed. It is supposed to be the capital of the Malli of Alexander's historians; the place where Alexander was wounded. At an interval of 1300 years, two conquerors, Alexander and Mahmud, were opposed by a race of this name. In A.D. 1000, Mahmud entered Hindustan, but in the course of eight years he made no farther progress than Multan. The Malli and Catheri (that is the Khatri or Rajput tribe) of Alexander must have preserved their ancient spirit, to be able to oppose, for so long a time, such formidable armies, headed by so furious an enthusiast as Mahmud.

Multan city was conquered by Shahab-ud-Din in 1171. After the invasion of Timur, it fell into the hands successively of an Afghan, of the Arghuns of Sind, of the Moghul emperors of India, of Nadir Shah, of the Sikhs, and now of the British. Its local name is still Mallithan. Multan fortress, with Mulraj and garrison, after a prolonged siege, surrendered unconditionally to the investing Indian army on the 22d January 1849.

Multan and Tatta were the ancient seats of the Balla or Balli-ka-putra race, and to the present the blessing or byrd of the bards is Tatta-Multan-ka-Rao.

There are in the Multan and Dehrajat divisions 42 castes returned as Jat, in number about 100,000 souls, engaged in gardening and other trades,—Arain, bazigar, bhatia, Baluch, charho, Chuhra, darzi, dhobi, Dum, fakir, Gujar, julaha, jogi, kallal, kamāngar, Kabar, kutana, khoja, kumhar, Labana, lohar, machhi, mali, mahar, mochi, mujawar, Moghul, mallah, mirasi, Pathan, paoli, pungar, qassab, qazi, Qureshi, Rajput, Shaikh, sniklgar, Tarkhan, teli, zargar. Multan town in 1881 had Hindus, 29,962; Muhammadans, 36,294; Sikh, 661; Jain, 46; unspecified, 174. The city of Multan forms the great commercial centre of the district, but there are also bazars at Shujabad, Kahrur, Sarai Sidhu, Tulamba, Lodhran, Jalalpur, and other smaller towns.

Turkestan, and especially the city of Bokhara, supplies Multan with silk of three kinds, namely,

Lah-i-abi, Charkhi, and Hoshkari. These are purchased in Bokhara from 7, 9, to 12 rupees per seer, and sold in Multan from 10, 12, to 15 rupees. One camel-load of the first kind of silk, which is equal to 6½ maunds in weight, costs at Bokhara 440 tila, or 2837 rupees 8 annas. Each tila makes 6 Nanakshai rupees and 6 or 7 annas. The trade of Bokhara to Multan is generally conducted by the Lohani and Shikarpuri on camels. Multan indigo is of good colour.

In the citadel is the shrine of Baha-u-Din, Rukn-i-Alam. North of the city is the shrine of the martyr Shams Tabreezi. Burton states that the people of Multan murdered Shams of Tabreez, a celebrated Murshid or spiritual teacher, in order to bury him in their town. The Afghan Hazara, he says, made a point of killing and burying in their own country, any stranger who is indiscreet enough to commit a miracle or show any particular sign of sanctity.

MULTANIA THUG, a class of Thugs who were all Muhammadans, and assumed the character of Banjaras, trading in grain, and travelling with their families, but putting most of their female children to death. They strangled travellers with their bullock ropes; they were considered among the ancient Thugs.

MULVI, in India the pronunciation of the Arabic Mula or Maula, a learned Muhammadan, one learned in the Muhammadan law. Formerly, in British India, a mulvi was attached to each court of justice, but latterly learned Muhammadan and other subordinate judges have been styled Amin and Sadr-Amin. See Mula.

MUMMURTI, the Hindu triad, Brahma, Vishnu, and Siva, literally three forms, from Mur, three, and Mur't, forms.

MUMMY, the Egyptians believed in the re-occupation of the body by the soul, and their object in so preserving the body was to have it ready for the re-entry of the soul after completing its period of migrations. The mummy cases of Egypt were made of the wood of Cordia myxa. In 1881, 39 mummies of royal and priestly persons were discovered at Deir-el-Bahari near Thebes. They were mostly found wrapped in shrouds of fine linen, enclosed in three wooden mummy cases, each disclosing the form of the body, and fitting in one another like a nest of boxes, the arms crossed upon the breast, the right hand grasping the crux ansata, the uræi serpents gilt, the head-dress exquisitely carved; written texts on the mummy cases, in yellow, orange, and green, festoons and wreaths of flowers in marvellous preservation, and papyri of value.

Ramses II. is the Pharaoh of Jewish history.

King Raakenen, 17th dynasty.

King Aahmes I. (Amosis), founder of 18th dynasty.

Queen Aahmes Nofert Ari, wife of Aahmes I.

Queen Ar-hotep, daughter of Aahmes I.

Prince Sa Ammon, son of

Princess Sat Ammon, daughter of "

King Amenhotep I. (Amenophis), 2d of 18th dynasty.

King Thotmes I., second king of 18th dynasty.

King Thotmes II., third

King Thotmes III. the Great, fourth king of 18th dynasty.

Queens Hont-ta-me-hou, An, and Selka of the 18th dynasty.

King Ramses I., founder of the 19th dynasty.

King Seti I., second of "

King Ramses II., third of "

Queen Noutjent, of 21st dynasty.

High priest Pinotem, of "

Queen Ra-ma-ka, of 21st dynasty.

King Pinotem, of "

Queen Hont-ta-taoui, daughter of king Pinotem.

High priest Ma-sahata, relative of "

Queen Ast-em-jeb, daughter of "

Princess Nessi Kon sou, daughter of "

—Times, 28th August 1881.

MUMTAZ MAHAL, the title of Arjamaud Banu Begum, queen of Shah Jahan, emperor of Delhi. She was the daughter of Abul Hasan, son of Itinad-ud-Dowla, prime minister of the emperor Jahangir. She was twenty years married to Shah Jahan, and bore him a child almost every year. Bernier says the emperor loved her so passionately that his conjugal fidelity was never impeached while she lived. The death of the Begum on the 18th July 1631 was occasioned by her giving birth to a daughter, who is fabulously said to have been heard crying in the womb by herself and her other daughters. The sultana died in two hours after the birth of the princess. Her husband, Shah Jahan, erected over her remains a magnificent tomb, known to Europeans as the Taj Mahal, a corruption of Mumtaz Mahal. Travernier says that in building the Taj 20,000 workmen were employed for 22 years in its erection, and he states it was erected by a Frenchman of the name of Austin de Bordeaux. The brick scaffolding is said to have cost as much as the building itself. The marble had been presented by the raja of Jeypore, and was brought from its quarries, a distance of 140 miles, upon wheeled carriages. The mausoleum stands on a marble terrace over the Jumna, is flanked at a moderate distance by two mosques, and is surrounded by extensive gardens. The building itself on the outside is of white marble, with a high cupola and four minarets. In the centre of the interior is a lofty hall of a circular form under a dome, in the middle of which is the tomb, enclosed within an open screen of elaborate tracery formed of marble and mosaics. The walls are of white marble, with borders of a running pattern of flowers in mosaic. The graceful flow, the harmonious colours, and, above all, the sparing use of this rich ornament, with the mild lustre of the marble on which it is displayed, form the peculiar charm of the building, and distinguish it from any other in the world. The materials are the inferior gems, lapis-lazuli, jasper, heliotrope or bloodstone, a sort of golden stone (not well understood), with calcedony, agates, jade, and various stones of the same description. Voysey (As. Res. v. p. 424) says a single flower in the screen contains 100 stones, each cut to the exact shape necessary, and highly polished; and yet, says Bishop Heber, though everything is finished like an ornament for a drawing-room chimney-piece, the general effect produced is rather solemn and impressive than gaudy. In the minute beauties of execution, however, these flowers are by no means equal to those on tables and other small works in Pietra Dura at Florence. It is the taste displayed in the outline and application of this ornament, combined with the lightness and simplicity of the building, which gives it so prodigious an advantage over the gloomy panels of the chapel of the Medici. The mosaics of the Taj are said, with great probability, to have been the workmanship of Italians. Her husband died in A.D. 1666. In the middle of the apart-

ment, underneath the great cupola, are the cenotaphs of the royal pair. They lie side by side, the empress to the left. Her name, Mumtaz Mahal, Banu Begum, and the date of her death, 1631, are read on the slab. That of her husband, and the date of his death, 1666, are also inscribed upon the other tomb.—*Tr. Hind.* i. p. 413; *Elphinstone*, p. 531.

MUND. MAHR. A lot of land. Mundwahik, the cultivator of a mund or lot; from Mund, head, principal, stipulated sum or quantity, and Wahik, to cultivate. Munda, a headman.—*IV.*

MUNDA. MALEAL. In Malabar, a cloth worn by both sexes around the waist. Mundasa, a cloth worn by the poorer classes in Dharwar, costs Rs. 1½. See Mundoo.

MUNDAH, a race occupying the eastern and southern parts of Chutia Nagpur. The Mundah, Ho, and Oraon are all divided into families, called khel or clan, and may not take to wife a girl of their own khel. Manki is the name applied to the Mundah chiefs in the southern parts of Chutia Nagpur. The Manki have acquired considerable estates. The Mundah and Ho houses are more isolated, with better accommodation than those of the Oraon, with verandahs, and separate apartments for the married and unmarried members. Every Mundah village has its own dancing-place. The Mundah comprise about two-thirds of the population of the five parganas of Silli, Tamar, Baranda, Rabey, and Bundu, all others being recent settlers. But many of the Mundah Kol have been dispossessed of their ancestral lands by middlemen, Brahmans and Rajputs. The Mundah settlements are chiefly in the eastern and southern parts of Chutia Nagpur. Mundah features are flat and broad. The extreme features of this race are high cheek-bones, small eye orbits, often with an oblique setting, flat faces, without much beard or whisker, and in colour from brown to tawny-yellow. The richer people of the Mundah wear the poita, reverence Brahmans, and worship Kali, but the mass continue in their original faith. The great propitiatory sacrifices to the local deities are carousals, at which they eat, drink, sing, dance, and make love, and the Hindus settled in the province propitiate the local deities. The Mundah country is arranged into purha or divisions, each consisting of twelve or more villages under a chief, and the chiefs meet at times for consultation.

Many of the Oraon, and some of the Mundah clans or khel, are called after animals,—the eel, hawk, crow, heron, etc.; and the clans do not eat the animal whose name they bear.

Mundah were estimated by Colonel Dalton as under half a million.

The Ho or Larka of Singbhum, and the Mundah of the southern parganas, are finer as races than the Bhumij or the Santal.

The Mundah and the Ho keep the Magh Parab or Desauli Bonga festival, a period of licentious debauchery; but while with the Ho it lasts for a month, the Mundah restrict it to the full of the moon in Magh. At this the Mundah dance the Jadura dance—it is like the Hoja of Chutia Nagpur—round a branch of the Karam tree planted in the Akhra or dancing-place. The licentiousness these two indulge in at their great festival is a great defect in their character, and the elders drink heavily of their illi or beer.

The Mundah are less truthful and open, less manly and honest, than the Ho.

In the Mundah marriages the bride is always adult, and 5 or 7 rupees are paid for her. The couple are first married to two trees, the bride to the mahwa tree (*Bassia latifolia*), and the groom to the mango (*Mangifera Indica*), which they touch with sandur (red lead), and then clasp in their arms. They then stand on a curry-stone together, touch each other's forehead with sandur, when water is poured over them. This necessitates a change of clothes, for which they retire to a hut, and do not emerge until morning.

The dead of the Mundah and Ho are placed in a coffin along with all the clothes and ornaments used, and all the money the deceased had, and all burned. The larger bones are preserved till a large monumental stone can be obtained, and the bones interred below it,—the Ho near the houses, the Oraon separate from the village. They are taken to the tomb in a procession, with young girls bearing empty and partly broken pitchers, which they reverse from time to time to show that they are empty. The collection of these massive grave-stones under the fine old tamarind trees is a remarkable feature in Kol villages. The stones are sometimes so large that the men of several villages are required to move them. The bones are put with some rice into a new earthen vessel, deposited into the cavity prepared for them, and covered with the big stone. The Mundah and Oraon races are fond of field sports, and all game, large and small, disappear from near them. They form great hunting parties. Fishing and cock-fighting are also resorted to. The Mundah and Ho have a shamanite religion. They have no worship of material idols, but Singbongu, the sun, is the supreme being, the creator and preserver, a beneficent deity. They have secondary gods, all invisible, and generally malevolent. Sacrifices to Singbongu are made of fowls, pigs, white goat, ram, and buffalo.

The Oraon worship the sun under the name of Dharmi, as the creator and the preserver, and offer white animals to him in sacrifice.

Manki is the name applied to the Mundah chiefs on the southern parts of Chutia Nagpur.

Every Mundah village has its own dancing-place. General Cunningham suggests, pp. 505, 507, that the Mundah are the ancient Murunda.—*Major Dalton*, pp. 76-196; *Mr. (Sir) G. Campbell*.

MUNDA-PHORA. GUJ. A Muhammadan mendicant in the west of India, who, to extort charity, draws blood from his own head or other parts of his body; from Moonda, the head, Phorna, to break.

MUNDAVER. In the Animallay Hills are the Kader, Mundaver, and Pullar. The latter are wild-looking men, with long hair. They live on jungle products, mice, and other small animals. The Mundaver have no fixed dwellings, but wander over the innermost hills with their cattle, sheltering themselves in caves, or under little leaf sheds, and seldom remaining in one spot more than a year.

The Kader, Lords of the Hills, are a thick-lipped, small-bodied race, who live by the chase, and wield some influence over the ruder forest folk.

These hills have many kistvaens and dolmens.

MUNDEE. This ancient Rajput principality came into the control of the British Government

by the Lahore Treaty of the 9th March 1846. Area, 1080 square miles; population, 139,259; revenue, Rs. 3,00,000; tribute, Rs. 1,00,000. Full sovereignty was conceded to the raja Bulbeer Sein, his heirs, and those of his brothers, according to seniority, unless specially set aside by Government for incapacity or misconduct. The right of adoption has been conferred on the raja by sunnud. It furnishes rock-salt.—*Aitcheson's Treaties, etc.* p. 374.

MUNDEL, a cloth of cotton and gold, obtainable in Cutch, costs Rs. 8.4.11. An article of dress.

MUNDHATA, an island in the Nerbadda, famed for its Saiva, Hindu, and Jaina temples. Between it and the south bank is a deep, silent pool, with many crocodiles and large fish. On the south bank, the shrine of Amareswara has one of the 12 lingams which existed in India at the time of Mahmud's invasion. Up to the year 1824 worshippers sacrificed themselves to Kal Bhairava and his consort Kal Devi by precipitating themselves over the Birkhala rocks, at the eastern end of the island, at the rocks of the river's brink, where the terrible deity presided. The statues and figures of the deities have all been mutilated by the Muhammadan rulers.—*P. and I.* vii.

MUND-MALA. HIND. A necklace of human heads which is suspended from the necks of Siva and some of his avatars, as Bhairava, and of Parvati as Kal and Kali.

MUNDOO. MALEAL. A cloth given to a Nair woman betrothed to a single man.

MUNDUM or Mundwa, a temporary open shed or hall, adorned with flowers, and erected on festive occasions, as at marriages, etc. Also an open temple consecrated to a Hindu deity.

MUNDUN. HIND. A Muhammadan rite of shaving the child's head on the 6th or 40th day after birth.—*Herklots.*

MUNG. HIND. *Phaseolus mungo*, green gram. This is grown throughout British India, but more in the upper part of Hindustan; it is eaten by the natives dressed in various ways. It is used as Dal, and considered the third best among Dals. The dry leaves are given to cattle.—*Jaffrey.*

MUNGALA, or Kartikeya, in Hinduism, the leader of the celestial armies, is the Mars of the Hindus. He is one of the planets, and is of the Khettri caste. He was produced from the sweat of Siva's brow; and is painted of a red or flame colour, with four arms, holding in his hands a trident, a club, a lotus, and a spear. His vahan is a ram.

MUNGNEE. TEL. A chlorite? slate; when freshly quarried, it is comparatively soft, and easily workable, but by long weathering becomes highly indurated, black, and bright. It comes from the hill state of Nilgiri, in Orissa, where extensive quarries are said to exist. This stone is used principally for the manufacture of various utensils. Idols are also made of it; and the Aroon Khumba, a polygonal column of considerable grace and beauty, now standing before the principal entrance of the Puri temple, also the elaborately carved and figured slabs that adorned the top and sides of the doorways of the old temple of the Luwat-Kanarac (temple of the sun) in the same district, and the gigantic figures of native deities of Jeypore, in the Cuttack district, are of this stone.—*Cal. Cut. Ez.* 1862, 1872.

MUNGY PATTUN, a town in the Dekhan, anciently called Dhanak.

MUNH-BOLA-BHAI. HIND. An adopted brother; a custom amongst Muhammadan women of adopting a person as a brother; the Hindu men have it in the Bel-Bandhar, and the Rajput women in the Rakhi. See Bel-Bandhar; Brother-making; Rakhi.

MUNI, in Hinduism, a sage, ancient, holy, or learned men, styled also Rishi, to whom great deeds and the sacred books are ascribed. The siccation or drying up of the vale of Kashmir and of the Nepal valley are ascribed to two Muni. See Brahmadica; Hindu; Lords of Created Beings; Prajapati.

MUNI BEGUM, a European lady of Akbar's harem. The emperor survived his Lusitanian mistress, and showed his affection for her memory by erecting over her remains a handsome tomb at Secundra. In this tomb was located for many years the Press of the Church Mission Society, and its premises afforded shelter to 300 orphans in the famine of 1838.—*Tr. of Hind.* ii. p. 17.

MUNJ. HIND. *Saccharum sara* and *S. munja*, also *Eriophorum comosum*, very useful grasses; common in many parts of N. India, and known under several names. The boatmen of the Indus employ the munj as a towing rope, and for the rigging of their vessels, in all places above Sukkur. It is possessed of great tenacity, two-inch ropes, often 50 fathoms in length, made of its fibres, being sufficient for dragging the largest or 1200-maund boats up the Indus. The rope is also possessed of lightness, so advantageous for rigging, and is capable also of bearing, without injury, alternate exposure to wet and to subsequent drying. Plants growing beyond the range of the overflowings of the river, or of the influence of the tides, are possessed of the greatest strength. The upper leaves, about a foot or so in length, are preferred and collected. When required for twisting into rope, they are first moistened in water; two men then, sitting opposite to each other, take one of those moist bundles and beat it alternately with mallets, until the loose cellular are separated from the fibrous parts. These are then ready for twisting into ropes. It would form an ample supply of half-stuff for paper makers.—*Royle.*

MUNJA BYTHNA, sitting in state, a Muhammadan marriage ceremony.

MUNJAN. HIND. A tooth-powder made of burnt almond shells, common charcoal, or charcoal made from myrobalans or betel-nuts, or of frankincense and alum; any tooth-powder.—*Herklots.*

MUNJIRA, or Jhanjh. HIND. Small cymbals in the shape of cups, struck against each other, and accompanying most bands.

MUNJITH. GUV., HIND. *Rubia cordifolia*, Indian madder, grows in various parts of India, Central Asia, Persia, etc. It is applied to the same purposes in dyeing as Europe madder. The roots are long, about the thickness of a quill, with a smell somewhat resembling liquorice-root. Munjith is largely imported into Bombay from the Persian Gulf and Kurachee. The imports vary,—

1881-82, . . .	8,241 cwt.	Rs. 92,445
1882-83, . . .	17,096 „	1,44,013
1883-84, . . .	30,776 „	3,92,809

MUNKIR (Mankar) and Nakir, according to

Muhammadan belief, two angels who examine the spirits of the departed in the tomb. See Jibril.

MUNRO, SIR HECTOR, an officer serving the East Indian Company, who took Mahé in 1761. On the 28d October 1764 he defeated the wazir of Oudh at Buxar. This victory broke the forces of Shuja-ud-Dowla, and placed the emperor of Delhi under the protection of the East Indian Company.

MUNRO, SIR THOMAS, BARONET, K.C.B., entered the service of the East Indian Company as a cadet of infantry in 1780, and rose to be Governor of Madras. He died of cholera at Putticondah, near Ghooty, on the evening of 6th July 1827. He was long employed in the revenue department, and it was chiefly his influence that obtained the establishment in the Madras Presidency of the ryotwari system. In the last Mahratta war he rejoined the military department, took command of his own regiment, and added a handful of half-armed and half-disciplined men. He moved with these to the west, settling the region in his progress, and by his influence and promises inducing the Ghorpara chiefs of Sandur and Akalkot to remain quiet. He was simple and straightforward in his habits, capable of severe labour, bodily and mental. His life was written by Mr. Gleig. See Ryotwari.

MUNSHI, in Persia, a secretary; in India, a Muhammadan teacher of languages, usually the Urdu or Hindustani and the Persian.

MUNSIF. ARAB. An officer of a law court, a judge with limited jurisdiction.

MUNZERABAD, a district of Mysore, in which coffee-planting by Europeans is largely carried on.

MURA, a small fly in Garhwal, the Sarju valley, and Kamaon, which hovers a while in the air before alighting on the skin, to which it remains attached a considerable time. Its bite is at first painless, but after a short time a troublesome itching is felt, and a small round black spot of effused blood appears on the place where it has inflicted its bite. The black spot continues distinct for about a fortnight, and a traveller's hands, if unprotected, are very soon spotted all over. It is supposed to be the pipsa of Darjiling.

MURABBA. ARAB. A kind of magic square.

MURAJAT. ARAB. Conducting a distinguished guest on his return road. In all countries it is customary for a host to advance to receive a guest or visitor, and to accompany the visitor a short way on leaving. With Muhammadans, Istaqbāl is the advancing to receive a guest or visitor, and Murajāt is the conveying a visitor to the door or on his road.

MURALI, a name of Krishna in his Apollonic character. By the sounds of his pipe (Murali) he captivated the shepherdesses as he attended the kine in the pastoral Surasen. See Krishna; Muri.

MURARI MISRA, author of the *Anargha Raghava*, a drama in seven acts, of little merit, written in the 13th or 14th century. Raghava or Rama is the hero of the piece.—*Ward*, iv. p. 376; *Dowson*.

MURASAKAR. HIND. A jeweller working gold and gems.

MURCH'UL. HIND. A fan for driving away flies, especially of peacocks' feathers. A club-like fan, made of peacocks' feathers, used by the great.—*Herklots*.

MURCHUNG. HIND. Jew's-harp.

MURDAH. HIND. A dead body. Murdah-farosh, a person who removes the dead. Murdar-gosht, flesh of animals that have died. Murdah-sho or Ghassala, HIND., persons who wash the bodies of the dead.—*W.*

MURDANNIA SCAPIFLORA. *Royle*.
Anellema tuberosa, *Ham.* | *Commelyna scapiflora*, *R.*

Grows in the Panjab and in the Southern Konkans. Its tubers are used medicinally.—*Powell*; *Drury*.

MURFA, a drum like a d'hol, covered at both ends with leather, but played upon only on one side with a stick.

MURGHAB, a river of Afghanistan, which rises in the Koh-i-Baba mountains and Western Safed Koh, about lat. 35° N., and long. 66° E., and, flowing W. and N.W. past Merv, is lost in a lake or swamp in the sands of the Kara Kum desert, 50 miles N.W. of Merv, after running 450 miles. It is the Margus or Epardus of the Greeks.—*Ferrier's Journey*, p. 195; *Collett's Khiva*.

MURIATIC ACID.

Hydrochloric acid, . . .	ENG.	Luna rasa, . . .	SINGH.
Chlorwasser, . . .	GER.	Ooppu dravagam, . .	TAM.
Stoffsaure, . . .	"	Lavana dravakum, . .	TEL.
Namak ka tezab, . . .	HIND.		

This acid is a solution of the gas in water. The Hindus know it by a name equivalent to spirit or sharp water of salt. The commercial acid is always of a yellow colour. It is prepared by pouring the oil of vitriol of commerce on common salt in earthen or iron vessels.

MURICIA COCHIN-CHINENSE. *Lindley*.

Muh-pieh-tsze, CHIN. A cucurbitaceous plant of China and Cochin-China, with a fruit containing 30 to 40 flat seeds. Berry large, reddish-purple, scentless, insipid. Seeds and leaves aperient, and used by the Chinese in obstructions of the liver, tumours, malignant ulcerations, etc.; externally employed in fractures and in dislocations.—*Lindley*; *O'Sh.*; *Smith*.

MURID or Mureed. ARAB. Amongst Muhammadans, a disciple, a pupil, particularly a pupil of a murshid or head of an order of the darvesh. Those who crave for aids to salvation seek the spiritual advice of a holy man, who is reckoned a pir or religious teacher, and by certain secret words and signs are initiated as his murid or disciples. Others, even men of rank, adopt the darvesh or fakir life of the religious mendicant devotee, often attended with solemn rites of investiture, and followed by the severest of ascetic rites; but the bulk of these mendicants are, in India, idle, dissipated men, and a few are of very degraded habits. They arrange themselves into the followers of certain pir or spiritual guides, and those usually met with in India are the Kadria or Banawa, Chastia, Shutaria, Tabqatia or Madaria, Mallang, Rafai or Gurs-mar, Jalalia, Sohagia, Naksh-bandia, and Bawa Piray. All these have their own rules and customs; some of them are ascetic devotees, eating if given to eat, but never begging; some largely use intoxicating fluids and vegetable substances; some, as the Salik, have wives; the Majsub and Azad have no wives; and some of the Calandars marry, and some do not. The Muhammadan rite of making a murid is performed in the presence of others, or alone in a closet by the murshid or religious teacher.

MURILLO VELARDE, P. P., author of a

History of the Philippines from A.D. 1616 to 1716, printed at Manila, 1749.

MURKI KHEL. In former times fire-worship prevailed in Afghanistan, pyrethrae or fire-altars still crowning the crests of hills at Gard-dez, at Bamian, at Seghan, and at other places. Near Bamian is a cavern containing enormous quantities of human bones, apparently a common receptacle of the remains of Gabar corpses. At Murki Khel, also in the valley of Jalalabad, and under the Safed Koh, human bones are so abundant on the soil that walls are made of them. There is every reason to suppose it a sepulchral locality of the ancient Gabar. Coins are found in some number there.

MURLI. MAHR. A girl devoted to the Hindu gods, being married to some idol, to a knife, a dagger, a tree, and who may remain a virgin, but is usually common in India. Hereditary prostitutes are married to the plants togore, kund, goluncha or kulka, and sephalika, which are male. All other plants are female. The Murli of the Mahratta people is identical in character with the Jogini and the Basavi of the Teling people. Basava is a name of the vahan bull or conveyance of the god Siva. The Linga Basavi are women who have been dedicated to the lingam. The Garuda Basavi have been dedicated to Garuda, the eagle vahan of Vishnu, but they are alike common. There are few instances of the Brahman, the Kshatriya, Vaisya, or Sudra races so devoting their children, but amongst the non-Aryan races in the large towns it is commonly done as a means of prostitution without shame. The Dhangar, Mhar, Dher or Pariah, Mang or Chakili, Koli, and Manurwara, and occasionally even the higher Hindu castes, under various vows, devote their girls to the gods. The deity to whom the girl is more frequently vowed is some incarnation of Siva and his consorts. On the western side of India, Kandoba is the usual Siva avatar to whom the girls are devoted, and his chief shrines are at Jejuri, Khanapur, near Beder, and at Malligaon. The ordinary people believe that from time to time the shadow of the god comes on the devotee (deo ki chaya ati ang par), and possesses the devotee's person (Murli ki ang ko bhar deta). These devotees are called Murli in Mahratta, Jogni or Jognidani in Canarese, and Basava in Telugu. They at times affect to be possessed, perhaps are really hysterical, during which they rock the body, and people occasionally make offerings to them as to an oracle or soothsayer, laying money at their feet, and await the possessing, to hear a decision enunciated. The female deity to whom those near the Bhima river are devoted is Yellamah; the Bhui-koli race devote their Murli to Mata; boys also are devoted, and styled Waghia, from Wag, a tiger. Near Amraoti it is to Amba and to Kandoba that the Murli and the Waghia are devoted. The Waghia does not associate with the Murli. Occasionally the girl is taken to the idol, in some parts to a dagger, to whom she is married by a ceremony, and the deity is supposed to take possession of her. In Berar, at Amraoti, the people say that Kandoba particularly moves on Sunday, and selects a clean tree (clean Murli), whose body he fills. This idea of the visits of the gods pervades Hindu society. It is not the belief that their visits are restricted to these devoted women, but

that all women are liable to be selected by the deity, the visitor assuming the appearance of the husband. A comely Hindu woman is married, but without offspring, is supposed to be the subject of such supernatural visitation. So of old, when Demaratus, says Herodotus, had spoken to his mother, the mother answered him in this manner: 'Son, because you so earnestly desire me to speak the truth, I shall conceal nothing from you. The third night after Ariston had conducted me home to his house, a phantom, entirely like him in shape, entered my chamber, and, having lain with me, put a crown on my head, and went out again.' Similarly in the Bacchæ of Euripides, the hero says,—

'For that the sisters of my mother (least
Becomes it them) declared that not from Jove
I sprung, but pregnant by some mortal's love;
That Semele on Jove had falsely charged
Her fault, the poor device of Cadmus.'

In British history, Merlin and Arthur himself were both the sons of bloots (Vide Geoffrey's History, book vi. chap. xviii., and book viii. chap. xix.), to the former of which cases Spenser thus alludes,—

'And soothe men say that he was not the sonno
Of mortal sire or other living wighte,
But wondrously begotten and begonne,
By false illusion of a guileful sprite
On a faire ladye nun.'

In Scotland, the story of the Lady of Drummelzier and the Spirit of the Tweed is related in Note M., Lay of the Last Minstrel. In India, the cases of Sheeladitya, of Usa and Anirud, and of Kamala Kunwari are similar; and Captain Westmacott relates another in an article on Chardwar in Assam, in the Journal Bengal Asiatic Society, iv. p. 187 et seq. Butler thus satirically alludes to these stories,—

'Not as the ancient heroes did,
Who, that their base births might be hid
(Knowing that they were of doubtful gender,
And that they came in at a windore),
Made Jupiter himself, and others
O' th' gods, gallants to their own mothers,
To get on them a race of champions,
Of which old Homer first made lampoons.'

But this satirist's scornful remarks, however applicable to a civilised people, are not so to races like those of India, whose belief in spirits is their chief cult.—*Hudibras*, v. 211–218; *Rasamala*.

MURLIDAR, or the Tuneless, a name of Krishna represented playing on his flute.

MURMARI, a village 10 miles from Bandara; its villagers worship at the tomb of an English lady. Similarly, at Assaye, the villagers worship at the grave of a French artillery officer who was killed during the battle.

MURMI, a Buddhist tribe bordering between Nepal and Sikkim. They appear to be a pastoral branch of the Bhutia. They are Mongolian in appearance, Buddhist in religion, and speak a language which Colonel Dalton supposed to be a Bhutia dialect. They live in houses built of stone, on mountain tops at an elevation of from 4000 to 6000 feet. They are found in all parts of Nepal, from the Gandak river to the Mechi, and in smaller numbers in the Sikkim country. They are divided into several families or clans. The Murmi, like the Bhutia, burn their dead.—*Dalton's Ethnol. of Bengal*, p. 105.

MURRAIN. From their constant exposure at all

seasons, the cattle of the E. Indies, both those employed in agriculture and for carriage, are subject to devastating murrains that sweep them away by thousands. So frequent is the recurrence of these calamities, and so extended their ravages, that they reduce the facilities of agriculture at critical periods of harvest. A disorder, probably peripneumonia, frequently carries off the cattle in Assam and other hill countries on the continent of India; and there, as also in Ceylon, the inflammatory symptoms in the lungs and throat, and the internal derangement and external eruptive appearances, seem to indicate that the disease is attributable to neglect and exposure in a moist and variable climate, and that its prevention might be hoped for, and the cattle preserved, by the simple expedient of more humane and considerate treatment, especially by affording them cover at night.—*Tennent's Ceylon*, p. 50.

MURRAYA EXOTICA. Linn. China box.

Chaleas paniculata, Mant.
Ocimum Sinense, Rumph.
Marsana buxifolia, Sonnerat.

Kamini,	BENG.	Bibzar, Koontie, . .	HIND.
Tha-nat kha, . .	BURM.	Murchob of	KAMAON.
May kay,	ENG.	Attareya gass, . .	SINGH.
Cosmetic box, . .	ENG.	Naga golunga, . .	TEL.

A bush of all India, Ceylon, the Andamans, and China. The delightful fragrance of its delicate white flowers has procured for it the name of the honey-bush. *M. exotica*, *M. paniculata*, and the *Aglaia odorata*, are cultivated in China as very fragrant shrubs. A variety grows in Ceylon in gardens, and another variety is common in the warmer parts of the island, and up to an elevation of 3000 feet. *M. exotica* is an ornamental shrub, with beautiful dark green leaves; flowers white, and fragrant in the evening, and is easily grown by layers or cuttings.

Murraya paniculata, indigenous in Burma above Rangoon. It is a small, ornamental, fragrant flowering shrub, with pinnate leaves; flowers white and fragrant, appear in December and January; fruit reddish. Its fragrant bark is more used for a cosmetic than sandal-wood.—*Mason*.

MURREE, a sanatorium situated on the summit of a ridge at the western extremity of the Himalaya, overhanging the plateau of Rawal Pindi, from which it is 40 miles distant. Its position is lat. 33° 54' 30" N., and long. 73° 26' 30" E. On the southern slope the vegetation presents the ordinary features of the Western Himalaya. The forest-clad range of hills on which the sanatorium is built consists of a series of sandstone spurs, culminating in peaks some 8000 feet above sea-level, and stretching onward into Hazara, till they finally blend with the snowy ranges which enclose the Kashmir valley. They form a series of lateral spurs of the Himalayan system, running down from the main Kashmir and Hazara chain at right angles towards the plains, with a general direction from north-east to south-west. Thence they stretch down to the Murree ridge itself, whose highest portion, the Kashmir Point, has an elevation of 7507 feet above sea-level. Pindi Point is 7266 feet in height.—*Imp. Gaz.*

MURREE and Bugti tribes dwell in the hills forming a conterminous boundary of Sind and the Panjab. Near Harrund, the great Sulimani range having run in almost a straight line parallel

to the Indus for 300 miles, approaches its termination and joins the Mara Mount, which leads on to the Murree Hills, behind which lies the tableland, where Kahun, the capital of the Murree tribe, is situated. But in front of these Murree ranges there rises a series of sterile rocky hills, which run towards the Indus, and form themselves into an apex near the Gundherree peak, approaching to within a few miles of the river bank. It is at this point (Shawulla) that the conterminous boundary of Sind and the Panjab has been marked off. These last-named hills, projecting into the Lower Dehrajat, opposite Asnee, are crossed by passes leading towards the Murree Hills, and are claimed partly by the Murree and partly by the Bugti, whose hills lie farther to the south. A part of the Murree in Cutch Gandava were notorious for their lawless habits, and made frequent inroads on the plains. They and the Maghzi seem to have emigrated from Mekran to Cutch Gandava at different periods, and to have become incorporated with the Jat cultivators. A peaceful and obedient portion of the tribe are in the hills west of the province below Jell. A large portion are at Ada Murree, on the south-eastern frontier of Sind. The Doda Murree occupy Kahun. The Murree are a brave race.

MURREL. HIND. Species of the Ophiocephalidæ or snake-headed fish.

MURRHINE CUP. The fragments of a murrhine cup, the little Cambay stone cup still made in Cambay, were exhibited in the theatre of Nero, as if, adds Pliny, they had been the ashes of 'no less than Alexander the Great himself!' Seventy thousand sesterces was the price of one of these little Cambay cups in Rome in the days of Pompey. The price in Bombay ranges from 18 to 35 and 75 rupees. Nero paid 1,000,000 sesterces for a cup, a fact, remarks Pliny, 'well worthy of remembrance, that the father of his country should have drunk from a vessel of such a costly price.'

MURSHID. ARAB. A religious teacher of the Muhammadans of India and Persia, a guide to the right path. Amongst the Sunni Muhammadans, this person is a religious instructor in a family. Amongst the Shiah sect there are reckoned 12 imams, Ali and his eleven descendants. The Murshid or Pir of the Sunni Muhammadans initiates disciples, styled Murid, into his sect, after repeating the astafghar or renunciation and the five sections of the Muhammadan creed.

MURSHIDABAD, a city in Bengal, in lat. 24° 11' 5" N., and long. 88° 18' 50" E., situated on the left bank of the Bhagirathi river, and gives its name to a revenue district lying between lat. 23° 43' 15" and 24° 52' N., and long. 87° 43' and 88° 47' E., which is divided into two parts by the Bhagirathi. It was originally called Maksudabad, and is said by Tieffenthaler to have been founded by Akbar. Murshidabad was 5 miles long and 2½ miles broad in 1759, only two years after the battle of Plassey, when it had already attained its greatest magnitude.

Murshidabad was ruled by a dynasty founded by Murshid Kuli Khan, a converted Brahman, and is still the residence of the titular nawab. The area of the district is 2462 square miles. The Mal, Kailbartha, and Goula are numerous, and there are many Nat vagrants. A raft festival is

celebrated at Murshidabad in honour of Khwaja Khizr.

The Moti Jhil, or Pearl Lake, is about two miles south of Murshidabad. A palace was built by Suraj-ud-Dowla of materials brought from the ruins of Gaur, and a few arches are still left. It was from Moti jhil that Suraj-ud-Dowla, in 1757, marched out for the battle of Plassey; it was in the palace here that Colonel Clive placed Mir Jafar on the musnud; and at Moti jhil, Lord Clive, in 1766, as dewan of Bengal, Behar, and Orissa, held the first British Punya. Mir Jafar fixed his residence on the farther side of the river. To the north-east of Moti jhil, and immediately outside the city of Murshidabad, is the Kuttara, containing the tomb of Murshid Kuli Khan.—*Tr. of Hind. i. p. 71.*

MURUKEA, formerly one of the many kinds of slaves in Assam, distinguished by distinct appellations. The Murukea is a kind of Chapunea, neither servant, slave, nor equal, but partaking of all. The master provides the Murukea with a pair of bullocks and a plough, and he tills his master's land for two days. On the third day the Murukea may plough his own ground with his master's bullocks and plough.—*Butler's Assam, p. 228.*

MURUT, a race occupying the inland parts of Borneo. The Murut are the only existing race of head-hunters north of the capital, but this savagery is disappearing. The Dusun and Kadyan, although formerly head-hunters, have now taken to agricultural pursuits, and are well fed and prosperous compared to the Muruts, who, although they clear and plant the land around their immensely long pile dwellings, still depend much on their skill in hunting wild pig, deer, and other game for food. The Dyaks of Sarawak are now peaceful and industriously engaged in seafaring or agricultural pursuits. The Kayan are still warlike, and are a fine race of straight-limbed, powerful people. They formerly inhabited the country inland near the Limbang, and used to plunder the villages of the Muruts and Sabayans, killing the men and taking the women and children into slavery. Of late years, however, they have migrated farther south, and their headquarters are now on the Baran river.

Borneo population is 3 to 4 million. The languages of the interior are Murut, Dusun, and Brunei. The chief tribes are the Dyak, Kayan, Murut, Kadyan, Dusun, Lanun, Baju, Balagnini, and Sulu. The last-named four inhabit the northern part of Borneo and the islands to the N.E. The Murut highly prize old skulls as trophies. They are expert with the sumpitan.—*Burbridge, p. 148.*

MURVI. The thakur of Murvi is a Jhareja, was the first in Colonel Walker's time to abandon infanticide. He has possessions in Cutch. He visited England in 1884.

MURWUT, an agricultural and pastoral race within the British territories, stout, active men. Their country is sandy and arid, divided by ranges of hills. It depends entirely on rain for cultivation, and in many parts the inhabitants are even obliged to carry water for several miles to supply their families. Their country is about 35 miles square, stretching from Bannu to Muckelwand, and from near the foot of the Sulimani mountains to the short range of hills

which separate Saugor from the Indus. Damān proper, which lies to the south of the Murwut, and extends along the foot of the Sulimani mountains, is inhabited by the Waziri, Sheorani, and Zimurree, and is of equal length with Muckelwand, but of various breadth, from 8 or 10 miles to 30 and upwards. It is inhabited by the Dowlut-khail and Gundehpuray; the Menu-khail, Babur, and Sturiauni tribes, with the exception of the Gundehpur, are included in the general designation of Lohani. The Esau-khail, Murwut, and Khyssore, also, are comprehended under this denomination.—*Elphinstone's Caubul; Records of the Government of India.*

MURWY KOLI, one of the Balotta, and found in every village in the Northern Konkan. In Bombay families they are employed as palanquin bearers. Some Koli are settled in Angriah Kolaba, at Bombay, Kolaba, and Bassein, employing themselves as fishermen and seamen. At their meetings, whether for congratulation or condolence, they consume large quantities of spirits.

MUSA. ARAB. Moses, the prophet, to whom Muhammadans apply the epithet Kalam-ullah, he who spoke with God, or the mouthpiece of God. The Wells of Moses, the Ayun Musa, are eight miles down the Red Sea from Suez on the eastern shore. Ain (Ayun, plural) is a natural spring, and differs from the Ber or Bir, a cistern to hold rain-water. Jacob's Well, Bir Yakub, or Bir-us-Samaria, is 9 feet broad, and more than 70 feet deep. In 1855 it still had a stone over its mouth.

MUSA, a genus of the Musaceæ, the banana or plantain tribe of plants. Natives of South America, China, Madagascar, Mauritius, and the East Indies, about 20 species.

a. Heliconiæ, A. Rich.

Heliconia buccinata, Roxb., Moluccas.

b. Ravenalceæ.

- Musa paradisiaca, L., all the tropics.*
- M. rotunda, Jacq., Chittagong, Mauritius.*
- M. superba, Roxb., Dindigul.*
- M. Nepalensis, Wall., Nepal.*
- M. glauca, Roxb., Pegu.*
- M. textilis, Nees, Philippines.*
- M. Cavendishii, Lamb, China.*
- M. coccinea, Andr., China.*
- M. corniculata, Rumph., Archipelago.*
- M. ensete, Gmelin, Abyssinia.*
- M. simiarum, Rumph., Malacca.*
- M. rubra, Wall., Irawadi.*
- M. Chinensis, Sol., China.*
- M. maculata, Jacq., Mauritius.*
- M. bulbisana, Culla, Amboyna.*
- M. acuminata, Culla, Amboyna.*
- M. verteroniana, Culla, Moluccas.*
- M. textilis, Nees, Manila.*
- M. ornata, Roxb., Chittagong.*

The fruits of several species of musa, the plantain or banana, are used as food and for dessert, but the most esteemed is *M. paradisiaca, L.* The plantain is the muz or mauz of the Arabian writers, whence the Latin term musa. The plantain was known by description both to the Greeks and Romans. Theophrastus, among the plants of India, describes one as having fruit which serves as food for the wise men, and which was remarkable both for its sweetness and for its size, as one would suffice for four men,—referring most probably to a bunch of plantains. Pliny, evidently describing the same plant, informs us that its name was Pala, and in Malacalam it is Vella, and in Tamil Valle. In the

Indian Archipelago, the edible species extend northwards as far as Japan; in China are found *M. coccinea* and *M. Cavendishii*; also along the Malayan Peninsula to Chittagong,—*M. glauca* being indigenous in the former, and *M. ornata* in the latter locality. In the valleys of the south of the Peninsula of India and of the Dindigul mountains, *M. superba* is found.

No Burma or Karen house is to be found without a plantation of plantains. As the Karen leave their abodes, at least every three years, in order to migrate to fresh localities, they leave their plantain gardens behind them, and these may be found growing luxuriantly in many uninhabited places, until they become choked up by the growth of the more vigorous jungle. Natives of Bengal generally prefer the large and coarse-fruited kinds, while the smaller and more delicately-tasted fruit is alone esteemed by Europeans. All of that growing in Nepal has been called *M. Nepalensis*, and a similar wild species may be seen growing below the Mussoori range, as well as near Nabu. The fruit, however, in all these situations consists of little else than the hard, dry seeds; a variety having seeds surrounded with a gummy substance, instead of fruit-like pulp, was found by Dr. Finlayson, on Pulo Ubi, near the southern extremity of Cambodia. In Batavia, also, there is stated to be a variety full of seeds, which is called Pisang batu, or Pisang bidju,—that is, seed plantain. In Kamaon and Garhwal the plantain is cultivated at an elevation of 4000 and 5000 feet above the sea, and has been seen as far north as the Chamba range at an equal elevation. Major Munro has seen a wild plantain at 7000 feet above the sea, in the Konda slopes of the Neilgherries.

Mr. R. Brown thinks that nothing has been advanced to prevent all the cultivated varieties being derived from one species. Plantains and bananas are extensively cultivated in various parts of S. America, and at an elevation of 3000 feet in the Caraccas, and they are abundant in the W. India Islands, as well as at considerable elevations in Mexico. To the Negroes in the West Indies the plantain is invaluable; and in Guiana, Demerara, Jamaica, Trinidad, and other principal colonies, many thousand acres are planted with the plantain.

Dr. Roxburgh described the small-sized *M. ornata*, the On-ang-chok-chee of the Chinese, and Ramanigi-kula of Bengal. It resembles the banana and plantain in habit and in its perennial root. It was introduced into India. His description of the *M. glauca*, Roxb., is that it is a very stately, elegant, perfectly-distinct, strongly-marked species, a native of Pegu, and from thence introduced by the discoverer, Mr. F. Carey, into the Botanic Garden at Calcutta.—*Royle, Bot. and Fib. Plants*; *Roxb.*; *Helper*; *Mason*; *Voigt*; *Hogg*; *Drury*.

MUSA CAVENDISHII. Lambert.

M. rogia, Rumph.

M. Chinensis, Sweet.

M. nana, Loureir.

The Chinese banana stem attains 5 or 6 feet, has a profuse yield of fruit, 200 to 300 fruits in a spike; ripens in Madeira and Florida.

MUSA COCCINEA. *Ait.* A dwarf ornamental species of China.—*Von Mueller*.

MUSA CORNICULATA. *Rumph.* A plant of the Archipelago; fruits as large as a good-sized cucumber; skin thin; pulp reddish-white,

firm, dry, sweet, excellent for cooking. The Lubang variety is of enormous size.—*Kurz*.

MUSA ENSETE, *Gmelin*, is a magnificent plant of Abyssinia, attaining to 30 feet in height, with leaves 20 feet long and 3 feet broad. The body of the stem for several feet high is esculent. But so soon as the stalk appears perfect and full of leaves, it turns hard and fibrous, and is no longer eatable; before, it is the best of vegetables. When boiled it has the taste of the best new wheat-bread not perfectly baked. The fruit is not eatable.—*Bruce's Abyssinia*.

MUSA FEIHI, the Fei or mountain plantain tree of Tahiti. Its fruit is cooked and mixed with arrow-root.

MUSA PARADISIACA. Linn.

Musa sapientum, Roxb.

Maoz, . . .	ARAB., HIND.	Kadali, . . .	SANSK.
Kach-kula, . . .	BENG.	Anawalu-kesul, . . .	SINGH.
Huget-pyau, . . .	BURM.	Khel-khang, . . .	
Banana, Plantain, . . .	ENG.	Vali pallum, . . .	TAM.
Kela,	HIND.	Ariti pandu, . . .	TEL.
Godang,	JAV.	Ananti, Anati, . . .	"
Pesang,	MALAY.	Anti chettu, . . .	"
Vella, Valati, . . .	MALEAL.	Kommu ariti, . . .	"

There is a great variety of this delicious fruit in the East Indies, where this species is largely cultivated for its fruit. The natives eat them with milk and sugar, as Europeans do strawberries. Europeans also fry the fruit with butter, and eat it dusted with sugar. A dye is obtainable from the skin of the fruit. Its stem and leaves afford a fibre suited for certain purposes, but inferior in point of strength to Manilla hemp, the fibre of the *Musa textilis*. The stem is placed on a board, and the pulpy mass scraped out with a blunt knife, whilst clean water is poured on to wash away the remains of the pulp; the fibres are then dried in the sun. Each stem will give about 4 lbs. of raw fibre and 50 lbs. of fruit yearly. The fibre is fine, white, and silky, long, light, and strong. The quality depends on the mode of cultivation and treatment, but it is not so valuable as Manilla hemp. The stem seldom exceeds 7 or 8 inches in diameter and 12 feet in height, bears but one bunch of fruit, and dies, but it throws off new plants. The leaves, when young, are beautiful, expanding, with a smooth surface and vivid green, to 6 feet in length, and 2 or more in breadth, but, soon after attaining full size, the edges become torn by the wind. The flower is very large, purple, and shaped like an ear of Indian corn. At the root of the outer leaf, a double row of the fruit comes out half round the stalk or cob. The stalk then elongates a few inches, and another leaf is deflected, revealing another double row. Thus the stalk grows on, leaving a leaf of the flower and a bunch of the fruit every few inches, till there come to be 25 or 30 bunches, containing about 150 or 180 plantains, and weighing from 60 to 80 lbs. The weight bends over the end of the stalk, and when ripe it hangs within reach. Like the palms, it has no branches. In the East Indies, it is for the fruit, as a dessert, that this plantain is cultivated; but Humboldt calculated that 33 lbs. of wheat and 99 lbs. of potatoes require the same surface of ground that will produce 4000 lbs. of ripe plantains, which is to potatoes as 44 to 1, and to wheat as 133 to 1. Banana is a West Indian and tropical American term. In India the term plantain alone is given.

The edible varieties extend through the Indian Archipelago, northwards as far as Japan, while in China are found *M. coccinea* and *M. Cavendishii*. *M. glauca* is indigenous along the Malayan Peninsula. Dr. Helfer mentions that 20 varieties are found in the Tenasserim Provinces, and *M. ornata* grows in Chittagong. The Malays reckon 40 varieties of the cultivated banana, and the Philippine Islanders carry them to 57, both people having a distinctive epithet for each variety. The qualities are as various as those of apples and pears in Europe, the ordinary sorts being very indifferent fruit. In Khassya the name of the wild plantain is Kairem, and the cultivated Kakesh.—*Ainslie; Malcom's Travels; Hooker's Him. Jour.; Royle's Fib. Pl.; Crawford's Dict.*

MUSA SIMIARUM. *Rumph.*

M. acuminata, *Cull.* | *M. corniculata*, *Lour.*

Grows from Malacca to the Sunda Islands. It has about 50 varieties. It has fruit sometimes two feet long.—*Kurz; Von Mueller.*

MUSA TEXTILIS. *Nees.*

Pissang-utan, . . .	MALAY.	Abaca brava, . . .	TAG.
Koffo,	"	Bandala (fibre), . .	"
Kola-ubbal, . . .	TAG.		

A plant of the Philippines, said also to grow wild on the Western Ghats of the Peninsula of India, from Cape Comorin northward. In the northern slopes of the ghats, the plant does not reach a height fitted to afford a fibre of more than two feet in length. Its strength is well known to the ghat people, who employ it occasionally for domestic purposes, in rope-making, as well as the stem for food. Professor Bikmore states (p. 340) that in Minahassa this plant is raised from seed, and in the Philippines its fibre is called Bandala, the plant itself receiving the name of Abaca. The plant grows freely at Singapore, from which it was introduced into Madras by Colonel (Sir George) Balfour, C.B., of the Madras Artillery, but seems to have succeeded only in the Wynad, where it has been grown since 1864, and its value is fully recognised. Its fibre is largely imported from Manilla into Great Britain. See Manilla Hemp.

1877, 332,304 cwt., £488,069	1881, 353,770 cwt., £691,186
1878, 421,160 " 551,856	1882, 373,231 " 830,033
1879, 337,687 " 434,037	1883, 330,132 " 747,031
1880, 407,431 " 622,776	

and is there made into ropes for yacht rigging and clothes-lines. It is a native of the Philippines, also of some of the more northerly of the Molucca Islands. On account of its fibres, it is extensively cultivated in the first of these, particularly in the provinces of Camarines, and Albay in the great island of Luçon, and in several of the Bisaya Islands, a range lying south and east of it. It is grown extensively in Manilla, where 250,000 acres are planted with this staple; it has hitherto been treated only by hand, the natives preparing about 12 lbs. weight of fibre per day, and receiving one-half its value for the work, the waste being so great that only about 1 lb. of fibre is obtained from each tree. Yet, notwithstanding this, the exports have amounted to 35,000 tons annually. Manilla hemp is imported into Europe and America for rope-making only, and is worth £20 to £60 per ton, according to quality; the crop may be taken at from 10 cwt. to 2 tons per acre, according to successful treatment.

MUSA TROGLODYTARUM. *Linn.* The *M. uranoscopus* of *Rumph.* A plant of the Fiji Islands, has an upright fruit-stalk, as also has the dwarf Chinese *M. coccinea*, *Ait.—V. Mueller.*

MUSA - bin - MAIMUN, known to Western Europe as Maimonides, was called by the Jews the Eagle of the Doctors. He was born A.D. 1131 or 1133, at Cordova in Spain, of an illustrious family. He studied philosophy and medicine under Averrhoes, and he was learned in Arabic, Hebrew, Chaldee, and Turkish. He was a voluminous writer on theology. He settled at Cairo, where he opened a school, to which numerous pupils came from Greece and Alexandria.

MUSAFAHAH. ARAB. The Arab fashion of joining hands. They apply the palms of the right hands flat to each other, without squeezing the fingers, and then raise the hand to the forehead. Among polite people the right hand is placed on the breast, or the lips and forehead or turband touched by the same hand. This action is called Teymeeneh.

MUSAHIR, in the Terai, an aboriginal race. They are employed as woodmen; they eat the flesh of the lesser civet-cat, *Viverra Malaccensis*.

MUSA-ibn-NASIR, a celebrated Arab conqueror, who, A.D. 707, was Governor of Mauritania, and overran all the north of Africa. In 710 he crossed into Spain, and returned with much plunder. In 711 he despatched his general Tarik into Spain, who defeated and killed Roderick, the Gothic king, took Toledo and other cities. In 712 Musa landed at Algesiras, and reduced Seville, Beja, and Merida, and advanced on Toledo, where he displaced Tarik, and even flogged him; but Tarik was replaced by the khalif Walid, who ordered both Musa and Tarik to Syria. Tarik at once obeyed, but Musa required a reiterated order, and then, A.D. 715, took with him thousands of captives, among whom were 400 of the Spanish nobility, and a long train of camels laden with spoil. The khalif received Musa coldly, and the succeeding khalif, Suliman, cast Musa into prison, and fined him 200,000 pieces of gold, put one of his sons to death, and his head was brought to Musa by Suliman himself, who asked him if he knew it. The afflicted parent replied, 'Cursed be he who has slain a better man than himself.' Musa died in poverty, A.D. 717; born 640.—*Catafago.*

MUSA-KHEL, lat. 32° 43' N., long. 71° 39' E., in the Panjab, western part of the Salt Range, S.E. of Kalabagh. Mean height of the plain, 706 feet.—*Flem.*

MUSAL, in lat. 36° 21' N., a town on the right bank of the Tigris, in the province of Musal, surrounded by a stone wall. Its population, estimated at from 20,000 to 45,000 souls, Turks, Kurds, Jews, Armenians, Nestorians, and Arabs, the Christians being 6000. It was formerly famed for its muslins. Near it are several warm sulphurous springs. The plague has repeatedly devastated it.—*MacGregor.* See Mosul.

MUSAMMAT. ARAB., HIND., PERS. An honorific prefix to the names of women of rank, equivalent to lady.—*IV.*

MUSAN. HIND. The place where Hindoos burn their dead; it is called in Tannil Soodood-kadoo, and in Telugu Pinigalloo-kalsi-tagaloo.

MUSA RIVER at Hyderabad is a tributary of

the Kistna river. It skirts the city wall on its northern face.

MUSA SOHAG, the founder of a sect of Hindu devotees.

MUSCARDINE, a disease which in Europe attacks silk-worms; it is from the fungus *Botrytis bassiana*, the spores of which enter the bodies of the caterpillars and destroy them. The still more fatal pebrine disease is produced by a minute vibrio-like organism.—*V. Mueller*.

MUSCAT, in lat. 23° 28' N., long. 59° 19' E., is surrounded by bare rugged rocks. The town is built close to the water's edge, but its supply of water is brought by an aqueduct from a well half a mile distant. The arid hills protect, by almost encircling, a cove at the extremity of which is a small plain crowded with high houses, which form the town of Muscat. This emporium to the trade of the Persian Gulf is defended by batteries, which command the narrow entrance, as well as by fortifications that cover every part of the uneven and misshapen hills and crags around it.

In summer the heat is intolerable. Shut out by the hills from every breeze except that which blows direct into the narrow entrance of the cove, there is seldom a breath of air, and the reflection of the sun from the bare rocks and white fortifications which overhang the town and harbour, produce a temperature which is described by a Persian poet as giving a panting sinner a lively anticipation of his future destiny.

The Governor-General of India in Council claims power and jurisdiction over native Indian subjects of Her Majesty within the coast-line from Gwadur westward to the Persian Gulf, all the shores of the Persian Gulf and the Gulf of Oman, with the islands situated in these gulfs and the territories of the Sultan of Muscat in Arabia.

MUSEUM is derived from a Greek term signifying a temple of the muses, but, as used in Great Britain and in British India, it designates an institution in which are arranged specimens of the animal, vegetable, and mineral kingdoms, and those illustrative of economic geology. The probability is that there were many students of natural history in ancient times; for in Pompeii, destroyed in A.D. 79 by lava, in the room of a painter, a large collection of shells was found, comprising a great variety of Mediterranean species, in as good a state of preservation as if they had remained for the same number of years in a museum. We know, moreover, that on the revival of science in Western Europe, after the fall of the Constantinopolitan empire, the princes and nobles formed collections of relics of art, of specimens of natural objects, and other productions, constituting cabinets and museums. The discovery of busts, statues, bas-reliefs, inscriptions, and other antiquities of various kinds, led to the formation of many museums in Italy earlier than in other countries; the Medici, Dukes of Florence, particularly signalizing themselves by the liberality and magnificence they displayed in procuring relics of antiquities and valuable manuscripts and works of art. In Europe, in the 17th and 18th centuries, numerous museums, some exclusively appropriated to objects relating to one science only, and others of a more miscellaneous nature, were formed; not by kings and princes only, but by numbers of private persons. In England, John Tradescant collected curiosities

of various kinds, and his museum constituted the nucleus or foundation of the Ashmolean Museum at Oxford. James Petiver, a London apothecary, formed a cabinet of natural history; in Holland, Albert Seba distinguished himself as a collector of similar curiosities; and John Swammerdan devoted much time and labour to the study of the natural history of the insect tribes, and to the formation of a valuable museum. The Ashmolean Museum was presented in 1836 to the University of Oxford by Elias Ashmole, an eminent herald and antiquary. It comprised originally specimens to illustrate natural history, and various artificial curiosities, especially Roman antiquities; and since its establishment numerous additions have been made to it. Among the most celebrated collectors in England during the 18th century may be reckoned Richard Mead, an eminent physician, who accumulated a valuable cabinet of coins and medals, besides other interesting objects; Dr John Woodward, who applied himself especially, but not exclusively, to the collection and illustration of British minerals and fossil remains; and Sir Hans Sloane bequeathed to Government a magnificent museum and library, in the formation of which he had expended upwards of fifty thousand pounds. This formed the foundation of the British Museum, to which has since been added the donations of many eminent men, and has been aided by large annual grants from the Imperial Parliament. There are in London, Edinburgh, and Dublin, indeed in nearly every large town in Britain, other museums which have attained a considerable size. On the continent of Europe, picture galleries, sculpture galleries, and collections of natural history are to be met with in all the principal towns; and in the United States of America the collections that have been made rival those of the Old World.

The oldest museum in India was that of the Asiatic Society of Bengal, which included a Museum of Natural History and a Museum of Economic Geology, of which Mr. Blyth and Mr. Piddington for many years had been the respective curators.

The Asiatic Society of Bombay possessed a museum to which Dr. Carter, Dr. Buist, and Dr. Impey contributed; and the Madras Literary Society had a small collection of interest. In 1851, Surgeon (Surgeon-General) Edward Balfour formed the Government Central Museum at Madras, and in 1865 he founded the Mysore Museum at Bangalore; and in 1855, to that at Madras he added a zoological collection, which was subsequently transferred to the People's Park.

The Madras Museum is free to the public, who formed it by their liberal donations; the number of visitors amounted in the year 1855 to 201,987, and in the year 1856, 542,866; and the highest number since then was 709,009 in 1876. The visitors to the British Museum in 1878 were only 611,612. The Madras Museum embraces economic geology, all the branches of natural history, a public library, and collections of coins and antiquities. Calcutta got since an Imperial Museum.

The East Indian Company, from an early part of their career, had a museum in the India Office, at Leadenhall Street, and afterwards in Westminster, which was transferred to the South Kensington Museum, of which it became a section. There is now a museum at Agra, one

at Nagpur, another at Calcutta, one at Bombay, and one at Trevandrum.

MUSHAFI, whose name was Shaikh Ghulam Hamadani, was born at Amroha, in the Moradabad district, Rohilkhand. He lived for a time in Agra, then in Lucknow, where he closed his life about A.D. 1830. He wrote six diwans and two lives of the poets.

MUSHAIKH. ARAB. Properly written Mashaikh. A patriarch or devout man, a religious teacher. Shaikh is applied to a learned man or a reputed saint. Shaikh is also a religious chief; also the shaikh of an order of darveshes is called the occupant of the sajjadeh, or prayer carpet, of the founder of the order. Candidates for admission into it vow that they take the shaikh as their shaikh and guide unto God. Shaikh-ul-Islam, the dignity of shaikh of Muhammadanism. Mashyakhat, seniors, princes, presidents.

MUSHATA. HIND. A female jester.

MUSHKI, a western division of Baluchistan. Mushki has several towns and castles, and is occupied by the Mehmasani, the Nushirwani and Merwari tribes. The Merwari Brahui are located in Mushk, Jhow, and Kolwah. The Brahui entered from the west, and point to Khozdar as the capital prior to occupying Kalat. See Kalat.

MUSHRIK. ARAB. One who gives a companion to the Almighty; a term used by Mahomed in the Koran to designate Christians.

MUSHROOM.

Kamat, . . .	ARAB.	Kamba, Moksha, . . .	HIND.
Hiang-kwang, . . .	CHIN.	Kukur-mutta, . . .	"
Champignons, . . .	FR.	Kudrati, Pad-behera, . . .	"
Schwamme, . . .	GER.	Funghi, . . .	IT.
Guchi, . . .	HIND.	Kharere, . . .	PUSHTU.
Kama-guchu, . . .	"	Samarogh, . . .	"

The Agaricaceæ or mushroom tribe of plants comprise mushrooms, puff-balls, and mildews. They grow on the earth, and on decayed animal and vegetable substances, scarcely ever on living bodies of either kingdom, in which respect they differ from lichens, which commonly grow on the living bark of trees. Dr. Royle's collections in the Himalaya amounted to about 40 specimens. There are 5000 recognised species of mushroom, of which only a few can be safely eaten. The poisonous properties vary with climate and the season of the year and locality, and some individuals, by idiosyncrasy, are liable to be affected even by species which other people eat with impunity.

Agaricus campestris, the common mushroom, various species of the *Helvella* or morel, and of the tuber or truffle are useful as food, but there is great difficulty experienced in distinguishing the poisonous from the edible kinds. Such as are poisonous or suspicious have a cap very thin in proportion to the gills; have the stalk growing from one side of the cap; have the gills all of equal length; have a milky juice; deliquesce, that is, run speedily into a dark watery liquid; or the collar that surrounds the stalk resembles a spider's web. The Kudrati mushroom is found throughout the Dekhan in the rainy season. Mushrooms are often seen in the Temasserim bazar, and the Karens have names for 64 different species of mushrooms and the allied fungi. They distinguish the edible from the poisonous kinds, they say, by touching them with the lime that they eat with the betel. If the fungus turn red

when touched, it is regarded as poisonous. But they are so careless or ignorant, that sickness and death often ensue after eating them. A new mushroom, collected from the stumps of trees, *Agaricus (Pleurotus) subcreatus*, is a dendrophylal species, drying readily, is employed in the Straits Settlements as an article of food, and is nearly allied to the British *Agaricus ulmarius*, from which it is separated by the volva, remains of which may be traced at the base of the stem.

Hydnum coralloides, Scop., the Koho khur mushroom of Kashmir, where it is cooked and eaten, its taste being excellent. It grows in the hollow trunks of the *Pinus Webbiana* tree. Mr. Powell says there are three edible kinds of fungi in the Panjab, viz. the mushroom (*Agaricus campestris*, the Samarak or Samarugh of the Panjab), also the morel, *Morchella esculenta* (*Phallus esculentus*), and the truffle, *Tuber cibarium*, or allied species, called khumba and khambur. The *Agaricus campestris* is usually called pad bahera; and the morel, guchi or kama-guchu. Dr. Henderson mentions that in Shahpur and other districts, where there is kalr in the soil, the morel and mushroom are both abundant, the former in August and September, the latter in the end of the cold season, after heavy falls of rain. Muhammadans eat only the morel, and consider the mushroom as harām or unlawful food. The Hindus there say that every mushroom having a pleasant smell and taste is wholesome. In the Jhang district, an underground morel, called phahor, is found in fields of *Sorghum vulgare*; and Edgeworth, in the *Florula Mallica*, mentions an esculent morel, which he calls būnpāl, literally white fruit. Quantities of the morel are brought from Kashmir to Amritsar. The khumba of Muzaffargarh is of a pure white colour, with a powdery surface, and destitute of gills; it is very common in the rains, and is much esteemed as an article of food. Fried in the ordinary way, they are equal in flavour to English mushrooms.

General MacGregor says (p. 42) that mushrooms are largely used by the Afghan nomades and poorer classes to supply the place of meat. The Chinese in every province eat large quantities of fungi, but prefer the polypori or boleti to the agarics. The Ti-kai are edible agarics; the Muh-rh are parasitic fungi growing on trees, and much eaten.

In Japan the best edible species are called Matu-shake and Shu-take. The latter are largely cultivated; they are almost tasteless when raw, but when dried have an extremely fine flavour. They grow on the decayed trunk of the Shu tree. They are largely exported. In France, in Italy, and especially in Russia, a useful aliment is afforded by a great variety of species which, although very common in Britain, it would be extremely dangerous to eat; even the dangerous *Agaricus muscarius* is used in Kamtschatka. The Asiatic physicians still employ the *A. muscarius* in their medicinal practice, long discarded from the European pharmacopœias. — Royle; Riddell; Honig; Mason; O'Sh.; Powell; Murray.

MUSHRU. HIND. A stuff of silk and cotton, satins, the back or warp of which consists of cotton. Value, 2 to 4 rupees per yard. Kim-khab, hemru, luppa, tas are all of the same order of manufacture, gold, or gold and silver, and silk. In the kimkhab, metal predominates, whereas in

the hemru the silk predominates. Another of the latter's characteristics is that the design is generally a diaper or buta. Affixes of single and double are also made use of to designate one colour or several, such as ekowdu hemru and bewdu hemru. In Surat it is known as kam-jurno aleacha, which means that there is only a small quantity of gold thread used in it. Lappa is all gold or silver, that is, the metal only is visible. Tas is much thinner, but manufactured in the same manner. Mushru and hemru are not used for tunics, but for the trousers of men and women, and for women's skirts; as also for covering bedding and pillows; they are very strong and durable fabrics, wash well, and preserve their colour, however long worn or roughly used; but they can hardly be compared with English satins, which, however, if more delicate in colour and texture, are unfitted for the purposes to which the Indian fabrics are applied. For example, a labada or dressing-gown was worn for 20 years, was washed over and over again, and subjected to all kinds of rough usage, yet the satin continued unfrayed, and the colour and gloss as bright as ever.

MUSIC. Amongst the Hindus of early ages music appears to have attained a theoretical precision at a period when even Greece was little removed from barbarism. The Arab system of music is derived partly from Greek, Persian, and Indian treatises,—Musika, their general name for music, and the names of several musical instruments, being from the Greek; while most of the technical terms used by the Arab musicians are borrowed from the Persian and Indian languages. The inspirations of the bards of the Vedic Aryans of the first ages were all set to music; the children of the most powerful potentates sang the episodes of the great epics of Valmiki and Vyasa.

Music appears to have been cultivated largely by the Hindus, even after Vedic times, and the writings of many ancient authors are still extant. They fixed all their svara or notes within the compass of 3 octaves. Leaving the eighth note, they called the diapason a saptaka or heptachord, the seven notes being sharja, rishabha, gandhara, madhyama, panchama, dhaibhata, and nishada. Hindu music has 84 modes, of which 36 are in general use. They are named from the seasons of the year and the hours of the day and night, and are each considered to possess some quality appropriate to the time, and each is supposed to have a peculiar expression and the power of moving some particular sentiment or affection. The Hindu modes are formed partly by giving the lead to one or other of the twelve sounds recognised in Europe, and varying seven different ways the position of the semitones. This gives the number 84.

In Sanskrit, harmony is termed Sruti, and melody Raga. While the reading of the Vedas, Puranas, and other religious books was monopolized by the Vydika, religious men, and poetry, rhetoric, and kindred branches of learning became the hobby of the Lokika, or men of the world, music, left without any place and protection, took refuge in Hindu brothels. The religious Brahmans went so far as to hurl their thunders against those who practised it, and said 'Gayata na thayam' (that we should not give them anything). Much attention has not, however, been

paid to this injunction, and it has often been violated.

In British India, instrumental music is chiefly cultivated by professionals, and while it is common for men to perform on instruments, and those in a great variety, women do so comparatively to a small extent, and only use few and simple instruments. Amongst the Hindus, professional musicians form a distinct tribe or caste called Kathaks, and with these the gift or inspiration of music is supposed to be hereditary. The sitar is a favourite with amateurs. It is made from a hollow gourd. Usually it has three wire strings, whence its name, but sometimes it has six, or even nine, and is played with the first finger of the right hand alone, on which is placed a little steel wire frame, called a mirab, with which the strings are struck; the left hand stops the notes in the frets, but only those of the first string, while the other notes in the manner in which they are tuned produce a sort of pedal sound. The saringi is in appearance somewhat like a violin, and is played with a bow; the tabla is a small drum with only one opening, the part opposite to this being concave and made of wood. The drum rests upon the ground, the covered opening being uppermost, and is struck rapidly and sharply by the fingers. Sometimes two such drums are played by the right and left hand together. The dhol is more like an English drum; it is usually 1 foot 2 inches long, and 8 inches in diameter, but sometimes larger, with both ends covered with leather, and is played on with the hands. The tanpura is another kind of drum, while the turri and sunkh are two varieties of trumpets.

The Muhammadans of India have the following instruments, viz.:—

- Algoa, a small flageolet, a span long.
- Banka is the Turri, with the upper piece turned from the performer, forming it into the shape of the letter S.
- Banslee, or flute.
- Been or Vina, a sort of sitar, but having two dried hollow pumpkins (*Cucurbita melopepo*, Willd.) fixed to the end of it, with five or seven steel strings.
- Chukara, a kind of violin.
- Daera, a tambourine, played upon with a stick.
- Dhol, a large drum, both sides covered with leather, and played upon with the hands. D'holuk, smaller, and only one side covered with leather.
- Doroo, a small double-headed hand-drum.
- Duff or Duffra, the tambour de basque; tympanum, according to Gentius, Sadi Resar. Polit. p. 303.
- A sort of bass tambourine, played upon with a stick.
- Dunka, a bass kettle-drum, middle size, between the nugara and tukkoray.
- Ghugree, one or two hollow rings with pebbles in them, worn on one or both thumbs.
- Goonghroo, little bells fastened round the wrists and ankles.
- Keenggree has three or four pumpkins, and only two steel strings, generally used by Hindus.
- Khunjuree, a small tambourine, played upon with the fingers.
- Meerdung, a kind of drum which is an accompaniment to the kunchnee ka taefa.
- Munjeera or Jhanjh, a kind of small cymbals in the shape of cups, struck against each other, and accompanying most bands.
- Murchung, or Jew's-harp.
- Murfa, a drum like a dhol, covered at both ends with leather, but played upon only on one side with a stick.
- Nugara or Nakara, a kettle-drum.
- P'ukhawaj, a kind of drum, a tinbrel.

Qanoon, a species of dulcimer or harp.
 Qurna, a straight or curved horn, twelve feet long.
 Ragmala, a piano.
 Rubah, a kind of violin, a rebec.
 Saring, like a fiddle, played upon with a bow.
 Shuhnaee, a clarinet, a cubit long, and having a leaf mouthpiece, commonly called Soornaee.
 Sitar, sometimes it has nine or eleven steel wires, but generally three; whence its name, Si, three, and Tara, string or wire.
 Sunkh, the chank shell, is the trumpet of the Hindu temples, frequently used by devotees, also as an accompaniment to the tumkee. Sometimes they play trios and quartettos on the chank shells alone.
 Sur, a bass or drone to the shuhnaee.
 Surod, guitar (or sitar) having catgut or silk strings.
 Tabla, a couple of drums, played upon at the same time, one with each hand.
 Tabul, an enormously large drum, used in the field of battle.
 Tal, cymbals used by devotees, and frequently as an accompaniment to the tassa.
 Tasa or Tasha-murfa, a drum of a semicircular shape, played upon with two sticks, and invariably accompanied by the murfa.
 Taus or Mayuri, a modern instrument formed out of the sitar and saring, derives its name from the figure of a peacock at its base. It is generally used to accompany the female voice.
 Tukkoray, kettle-drums; one is called zayr, the other bum.
 Tumboora, a sitar having catgut strings instead of wire.
 Tumkee, a small circular brass plate, played on with a piece of wood, having a knob at the end.
 Turri or Turturi, commonly denominated by Europeans colliery horn, consists of three pieces fixed into one another, of a semicircular shape.

Those in use by the *Tamil* musicians are drums, one of them called malum murathangam or nathaluma; large and small flageolets; the mogoveni; cymbals; and the thoothe, somewhat like a bagpipe—this comprises the entire skin of a sheep or goat, freed of hair, and having all the openings closed, excepting two pipes of reed, one of which is inserted in the neck, and the other at one of the extremities, one to blow with, and the other through which the air issues, producing a low, moaning sound. They sometimes have a clarinet, violin, tambourine, and guitar, but these are innovations of late introduction.

With the *Burmese*, the tunes Tay-dat, A-poodaik, Lon-gyin, etc., are as familiar as 'God save the Queen,' to an Englishman. The Kayah-than is of modern origin. In their acknowledged national airs it is difficult to get a definite rhythm, the music being almost invariably a mere succession of recitative.

Of the *Burmese* musical instruments, the chief in size and power is the patsbaing, a drum harmonicon. It consists of a circular tub-like frame, about 30 inches high, and 4½ feet in diameter. This frame is formed of separate wooden staves fancifully carved, and fitting by tenon into a hoop, which keeps them in place. Round the interior of the frame are suspended vertically some 18 or 20 drums, or tom-toms, graduated in tone, and in size from about 2½ inches diameter up to 10. In tuning, the tone of each drum is modified as required, by the application of a little moist clay with a sweep of the thumb in the centre of the parchment. The whole system then forms a sort of harmonicon, on which the performer, squatted in the middle, plays with the natural plectra of his fingers and palms, and with great dexterity and musical effect.

Another somewhat similar instrument has a

frame about 4 feet in diameter, and 14 inches high. The player sits within the inner circle, and strikes the gongs with small drum-sticks. This instrument is one of singular sweetness and melody.

The harp of Burma is held across the lap when played, the curved horn being to the left, and the right hand passed round and over the strings, instead of being kept upright like the Welsh harp. Tasselled cords attached to the ends of the strings, and twisted round the curved head, serve for tuning. This is done by pushing them up or down, so that the curvature of the head increases or diminishes the tension. These cords are at the same time ornamental appendages to the harp. This harp is a pleasing instrument by itself, but it is usually only an accompaniment to unmelodious chants of intolerable prolixity.

Other musical instruments are the pattala harmonicon, the meegyoung harps, the puloay or pynay flutes, the patma drum, the seing-weing drum harmonicon, the Soung harp, the Wah-le-kroht castanets, and the ya-gwin and than-lwin cymbals.

The bamboo harmonicon or staccato is used throughout Burma and the Eastern Archipelago. In Java they have a number of such instruments, made in wood and metal, and only slightly differing from one another, though distinguished by different names. In that of Burma, 18 to 20 slips of bamboo, about an inch and a half broad, and of graduated length, are strung upon a double string, and suspended in a catenary over the mouth of a trough-like sounding box. The roundish side of the bamboo is uppermost, and whilst the extremities of the slips are left of their original thickness, the middle part of each is thinned and hollowed out below. The tuning is accomplished partly by the regulating of this thinning of the middle part. The scale so formed is played with one or two drum-sticks, and the instrument is one of very mellow and pleasing tone. Though the materials are of no value, a good old harmonicon is prized by the owner like a good old cremona, and he can rarely be induced to part with it. Other musical instruments of Java are the bonang, kromo, and gambang.

Chinese musical instruments,—

The great bell, with the Chinese the regulator of the harmonic scale and giver of the fundamental note, was used in the adjustment of weights and measures. In size it did not surpass the keun or standard of measure, in weight the shih, or standard of weight; the concert pitch, the measuring rod, the standard of capacity, were all derived from this.

Cha-keo or horn consists of a stem and a crook expanding into a bell. There are two kinds, a larger and smaller; both utter grave sounds.

Chih-teih, or in the Canton dialect teem-tek, often called saw, is the flute or vocal reed in its most primitive form. It is pierced with five holes.

Hao-tung, sometimes called heang-teik, on the principle of the trombone. It is made of thin copper, a conical bell with a ball at the top.

Kin-chin, the scholar's lute, was the instrument played upon by Confucius and ancient scholars, and is held sacred by men of letters. It is made from the woo-tung wood, *Dryandria cordifolia*. The strings are of silk.

Koo or drum, the ta-koo or big drum, resembles a kettle-drum. The King-foo or pillar-drum. The Yung, a smaller kind of pillar-drum. Pe-koo or low drum, with its yoke-fellow in a chorus called the Pang-koo.

Lo, the gong of the Javanese, of two kinds, both round.

one large and flat, used on shipboard at eventide in place of prayer and praise.

Pepa, the balloon-shaped guitar, made of woo-tung. It corresponds exactly to the harp of Pythagoras in the outline.

Sang, a collection of tubes of varied length so as to utter sounds at harmonic intervals with each other. There are two kinds, one called chaou or bird's nest, the other ho or sweet concord.

San-heen, three-stringed guitar, is made of the swan-che wood, covered with the skin of the tan-snake. It is played as an accompaniment to the pepa.

Urh-heen, the two-stringed fiddle, the rebec of the Chinese, a very cheap instrument, on the principle of the violin, but consists of a stick of bamboo passing through a hollow cylinder of the same material.

Yue-kin, or Full Moon guitar, with four strings, is made of the swan-che wood, and has a perfectly circular body; it is never varnished.

Japanese musical instruments are the ko-to, ko-yu, and sa-mi-sen.—*Sir W. Jones, As. Res.*

MUSICAL FISH, or Drum Fish, a sea fish near the Pearl River near Macao. Every evening they assemble around a ship and continue their musical humming till about midnight. The noise rises and falls, or suddenly ceases at times, as they quit the ship in search of food.

Dr. Buist, writing in the Bombay Times of January 1847, mentioned that a party, while crossing from the promontory in Salsette called the Neat's Tongue to near Sewree, about sunset, heard long distinct sounds like a long-drawn-out musical note, and the boatmen intimated that the sounds were produced by fish abounding in the muddy creeks and shoals around Bombay and Salsette. The boatmen next day produced specimens of the fish, a creature closely resembling in size and shape the fresh-water perch of the north of Europe. It is supposed that the fish are confined to particular localities,—shallows, estuaries, and muddy creeks. The Bombay Times of 13th February 1849 contained a communication from Vizagapatam relative to 'musical sounds like the prolonged notes on the harp' having been heard to proceed from under water at that station. Several fish utter sounds.—*Adams*, p. 63.

MUSIRIS, a port known to the Greeks on the coast of Malabar, probably Mangalore. It is alluded to in the Periplus of the Erythraean Sea (supposed to have been written by Arrian, to whom we are indebted for the earliest mention of the peninsula of the Dekhan); and we are informed of Hippalus, the commander of a vessel in the Indian trade, having the hardihood to stretch out to sea, from the mouth of the Arabian Gulf, and practically test the more theoretical observations of his predecessors. This experiment was successful, and he found himself carried by the south-west monsoon to Musiris. This bold adventure gained for him the honour of having his name attached to the wind by which he was enabled to perform this novel voyage.—*Ind. in 16th Century*.

MUSK.

Kado, . . .	BURM.	D'ed'es, Rasi,	MALAY.
Shie-hiang, . . .	CHIN.	Jabat, . . .	"
Kasturi, . . .	HIND.	Rutta, Oorula,	SINGH.

Musk of commerce is a secretion of the musk-deer, the *Moschus moschiferus* of the Himalaya, Siberia, Tonquin, and Cochin-China. In the year 1879-80, India exported 3224 ounces, value 90,039 rupees.

The musk-bag is at the end of the penis. It is

globular, about 1½ inches in diameter, and hairy, with a hole in the centre about the size of a lead pencil, from which the secretion can be squeezed. The orifice of the urethra lies near this, a little posteriorly. Round the margin of the opening of the gland is a circle of small glandular-looking bodies. In the living musk-deer the musk has the consistence of honey, is of a brownish-reil colour, and has a strong odour. When dry, this musk is almost solid, granular, and of a dark-brown colour. It feels unctuous and fatty, has a bitter aromatic taste, and its smell is powerful. Good musk is in irregular, unctuous, light, dry, reddish-black, or dark-purple grains, concreted in a slightly oval bag, about 1½ inches in diameter, hairy on one side and not on the other. They weigh from 200 to 250 grains a-piece. The small dark bags with the greyish hairs arranged evenly around the centre are the best.

The trace when rubbed on paper is a lively yellow, and no grittiness is felt or residue left. It is sometimes adulterated with dried blood or catechu. If the former be present, agitation with distilled water will often form a solution, coagulated by heat. The latter is detected by adding a solution of muriate of iron to the water in which the musk was diffused. A deep black colour is produced if catechu be present. Globules of lead are often fraudulently introduced into the sacs; the best test is the strength of the alcoholic solution.

Three other deer are said to yield musk, viz. the Napu or *Moschus Javanicus*, *Raffles*, found in the woods of Java and Sumatra; the Kranchil or *M. Kranchil*, *Raffles*; and the Chevrotain of the Altai, the *M. Altaicus*, *Esch.*—*Smith's M. M. C.*

MUSK-MELON, *Cucumis melo*; Musk-okro or Musk-hibiscus; *Abelmoschus moschatus*; Musk shrew, *Sorex caerulescens*, *Shaw*.

MUSK-RAT of Canada is the *Ondatra Americana*, *Tiedemann*; *Castor Zibethicus*, *Linn.*; *Fiber Zithicus*, *Cuv.*; *Ondatra*, *Lacep.*; the musquash of the Cree Indians, little beaver. The tails of the ondatra form a considerable article of import into India, being regarded by some races as aphrodisiac. The tails are covered with a thin sleek coat of short hairs, have a pleasing odour of musk, and are greatly prized in Russia and the Maldiv Islands. The musquash is easily tamed, soon becomes attached, and is cleanly and playful. There are three varieties, the black, the pied, and the white.—*Eng. Cyc.*

MUSK-ROOT of Canada is the *Euryangium sumbal*, *Kaufman*, a plant of Central Asia, and brought to England from Russia and Persia. The root exhales a powerful smell of musk, and has been used in medicine as a substitute for that substance. Its tissues are full of starch.—*Eng. Cyc.*

MUSK-WOOD of Tasmania and New South Wales (*Eurybia argophylla*, *Cass.*) is close-grained, and takes a good polish; it is useful in cabinet-work.

MUSLI. **HIND.** Medicinal substances in use among the Indian practitioners. They are roots, and supposed of several plants. There were three sorts represented in the Panjab Exhibition. Musli sembal from *Bombax heptaphyllum*, Musli safaid, apparently an immature specimen of satawar (*Asparagus adscendens*), and Musli siah. Musli sembal was a light, woody, fibrous root of a

brownish colour, with thin epidermis, easily detached, and a very fibrous thick tuber. It acts as a stimulant and tonic, and some consider it in large doses emetic.

White musli.

Safed musli, . . . HIND. | Tannir-vittang
Tsullagheadalu, . . . TEL. | kalangu, . . . TAM.

The root is long, fleshy, and whitish; is used powdered in the form of a thick mucilage with water, and answers admirably as a nutritious demulcent for convalescents. It is supposed, when taken in this form, to have the effect of filling the small-pox, and preventing the confluent disease. *Asparagus sarmentosus* root is offered for sale as the white musli, which is said to be the rootlets of *Salmalia Malabarica*. It was supposed by Ainslie to be from *Curculigo orchoides*. Birdwood thinks it is from *Murdannia scapiflora*, *Royle*, or from a species of *Tradescantia*. The *Asparagus filicinus* and *Aneilema tuberosa* are also named.

Black musli

Tal muli, . . . BENG. | Warahi musali, . . . SANSK.
Kali musli, . . . HIND. | Nelepanny kalangu, . . . TAM.
Siah musli, . . . PERS. | Nalla taty gudda, . . . TEL.

is a tuberous and wrinkled root about four inches long, slightly bitter and mucilaginous to the taste, and reckoned among those medicines which purify the blood; it also possesses tonic properties; is considered stimulant, and used as an aphrodisiac. It is procurable in most bazars throughout India. Musli siah is supposed to be the product of *Curculigo brevifolia* and *C. nigra*?—*Ainslie*; *Royle*; *Irvine*; *Birdwood*; *Powell*.

MUSLIM. ARAB. A follower of the Islam faith, a Muhammadan. Its plural form is Muslim. Muslim and Non-Muslim are applied in India to a convert to that faith.

MUSLIN.

Neteldock, . . . DUT. | Moussolina, . . . IT.
Mousseline, . . . FR. | Sana sella, . . . POL.
Musselin, . . . GER. | Kissen, . . . RUS.
Nessel Tuch, . . . „ | Moselina, . . . SP.
Malmal, Salla, . . . HIND.

A fine cotton fabric, extensively manufactured in India, in Europe, and America. There are in commerce a great variety of kinds and qualities, as book-muslin, cambric-muslin, mull-muslin, etc. Until the middle of the 19th century, from the earliest times India was famed for the delicacy of its cotton fabrics. The work of its looms was of a splendour unknown to European weavers. The gold and white, gold and purple, white and silver muslins, for colour, taste, and delicacy of arrangement, were artistic triumphs. Some of them, of gossamer transparency, were used for the dresses of the Indian princes, and of their families.

After the conquests of Alexander, Greek art undoubtedly exercised an influence on oriental architecture and sculpture, perhaps on oriental imagery generally, more particularly that of Persia. But the Indian textile splendours are of oriental origin, and the Greeks adopted the beautiful combinations and fabrics after they got a hold on Asia Minor; and as imperial Rome adopted the arts of Greece, and absorbed every element of luxury that the world could offer, the light and transparent textiles of India found their way to the wardrobes of the patricians, and the

way in which men as well as women adopted such transparent draperies in open day became a theme for the strictures of moral writers of the time.

The muslins made in Dacca in Bengal, and Arnee in Chingleput, were long celebrated, Dacca especially, for its webs of woven wind employed thousands of hands; but it was with great difficulty that the specimens of the fabrics sent to the Great Exhibition of 1851 were procured. The kind of cotton (which is very short in the staple) employed was little grown, and scarcely a loom then existed which was fit for the finest fabrics. Dacca muslin was made from cotton grown in the vicinity, the thread from which does not swell.

Chicacole and Upada, a few miles north of Cocanada, formerly produced fine muslins.

At Maderpak in N. Arcot, the thread used in weaving muslin of the finest kind is spun from a peculiar kind of cotton, known by the vernacular name of Pu Parthi. The weavers purchase this thread ready spun from a colony of Pariahs who have settled in the neighbourhood, and who have the speciality of its preparation. After the cotton is carefully cleaned and picked, it is laid by in cloth bundles for two or three years, when it is rolled in plantain bark and then wound off.

For the exceedingly fine Dacca muslins, the Ab-rawan or running water, and Shab-nam or night-dew, there is now no demand. The native nobility of India do not patronize the finest sort, and there is no market for them elsewhere. In 1862 there was only a single family of weavers in Dacca who could manufacture the very finest quality; and it took them six months to make up one piece, but even for this piece they got no orders. Besides, the particular kind of cotton, supposed to be finer than the finest New Orleans staple, from which alone the thread was spun, is now never grown. The principal varieties of muslins manufactured at Dacca are Malmal Khas, Ab-rawan, Shab-nam, Khasa, Jhuna Circar Ali, Tan-zeb, Alabullee, Nynsook, Buddun Khas, Turandam, Sarbuti, and Sarbund,—names which denote fineness, beauty, or transparency of texture, or the uses to which they are put. There were exhibited also—

Charkhana.
Junglekhassa.
Striped or Dooria.
Spotter or Bootes.
Jamdane, figured
muslin.

Chunderkoora Malmal,
Kurnool muslin,
Maderpak muslin from N.
Arcot.

The famous Arnee muslins, of which book-muslins are an imitation, are prepared at Arnee in the Chingleput district. They sell according to quality. At the 1851 and 1862 Exhibitions, Dacca muslins stood successful in comparison with those of Europe, and the Industrial Museum at London had a piece 20 yards × 1 yard, weighing only 7½ oz. An excellent specimen of Dacca manufacture, shown in 1851, proved to be of No. 357a yarn, and that of 1862, 380s. Some machine-made muslin in the 1851 and 1862 Exhibitions was superior in point of fineness, according to the mode of computation adopted.

MUSSÆNDA CORYMBOSA. *Roxb.* A small tree of Sylhet, Malabar, and Ceylon, with middle-sized bright orange flowers. Its white floral leaves are sometimes eaten.—*Roxb.*; *Voigt*.

MUSSÆNDA FRONDOSA.

MUSSÆNDA FRONDOSA. Linn.

M. flavescens, Roxb.

Sarwad, . . .	BOMBAY.	Behina, . . .	HIND.
Bhootcase, . . .	"	Bellia, . . .	MALEAL.
Sanchoit, . . .	"	Vella-cilay, . . .	TAM.

Grows in most parts of British India, Nepal, and Ceylon. Its white leaf contrasts with its deep golden-coloured flower. There are many varieties of it. Its root and the juice of its leaves and fruit are used in native medicine.—*Roxb.*

MUSSÆNDA MACROPHYLLA. *Wall.* A plant of Nepal with deep orange flowers. Dr. Mason notices, under the name of *M. Wallichii*, a species with corymbs of orange-coloured flowers, and a single sepal expanded into a large white leaf. It is abundant in Tenneserim forests. In Calcutta an allied species is cultivated in the gardens.—*Roxb.* i. p. 556; *Mason*; *Voigt*.

MUSSELS are molluscous animals, of the family Mytilidæ. Mussels are caught in small cylindrical basket traps, attached to a single rope, and floated with the tide near the bottom.

MUSSOI, a medicinal bark of the Archipelago, largely an article of trade.

MUSSOORI or **MAURI**, a town and sanatorium in the Dehra Doon district of the N.W. Provinces of India, in lat. 30° 27' 30" N., long. 78° 6' 30" E. It stands on the crest of a Himalayan peak, among beautiful and varied mountain scenery, and forms practically one station with Landaur. Elevation above sea-level, 7433 feet. It has many visitors during the summer months, but contains a large number of permanent residents. The thermometer has a range from 27° to 80°.

Banog, a hill to the west, has been ascertained to be 7545 feet above the sea. The river Jumna flows around the northern face of Banog, and Badray bounds Mussoori on the west. Mussoori houses are built upon heights varying from 6400 to 7200 feet. The view of the Snowy Mountains to the north, and of the valley of the Dhoon, spread out like a painted map at the foot of the hill to the south, is greatly admired. The rains set in in June, cease on or before the 18th of September, and are succeeded by an agreeable season, which lasts till Christmas, and sometimes till the middle or end of January. The temperature gradually sinks from 64° in the shade, in the beginning of October, into that of sharp winter, the frost becoming strong in the course of November. In January and February the weather is wintry, always with frost more or less intense, and occasional falls of snow.

MUSSULMAN. **ARAB.** Properly Musalmin, a person of the Muhammadan religion; it is the plural form of the Arabic Muslim. A woman is called Mussulmani, and the creed Islam. There are in British India about 50,121,585 of this faith, many of Arab, Persian, and Moghul descent, with many converts from Hinduism, however, particularly in Lower and Eastern Bengal. A large portion of the people of Turkey in Europe, most of the people of Northern Africa, the majority of those of Turkey in Asia, Arabia, Central and Southern Asia up to the Indus river, a fourth part of the population of British India and Ceylon, with a sprinkling in Sumatra, the Archipelago, and China, are of this faith. They are chiefly of two sects, Sunni and Shiah. Arabia, Syria, Asiatic Turkey, Central Asia, Egypt, and Af-

MUSTARD SEED.

ghanistan are largely Sunni. In European Turkey the Muhammadans form about a sixth part of the population. The Afghans are Mussulmans chiefly of the Sunni sect. The Parsivan and Aimak, who are subject to the Afghans, profess the Shiah form of Islam, but some of them are Ali-illahi. Mussulman sects are numerous, one of them is the Wahabee. The Wahabee calls himself a Muwahhid or Unitarian, in opposition to Mushrik—Polytheist,—any other sect but his own. The founder of this sect was Abdul Wahab, a native of Aijaene, a town in the district of El-Ared. This man in his youth first studied at home those sciences which are chiefly cultivated in Arabia. He afterwards spent some time at Basra, and made several journeys to Baghdad and through Persia. After his return to his native place, he propagated his opinions among his countrymen, and succeeded in converting several independent Shaikhs, whose subjects consequently became followers of this leader.—*Ferrier's Afghans*; *Jahan Numa*, 523; *Wellsted's Tr.*; *Burton's Mecca*; *Niebuhr's Tr.*; *Palgrave*.

MUST. **HIND.** **Mudda, SINGH.** A period of great excitement to which male elephants are subject in the rutting season, and during which it is not safe even for the mahout or driver to approach them.

MUSTAGH, a name of the Kouen Lun mountain chain. Aksu, a city of Chinese Tartary, lies to the south of the glacier pass over the Mustagh, in lat. 78° 58' N., long. 41° 9' E. It contained 1200 houses. It stands at the confluence of the rivers Aksu (white water) and Kokshal. It is the central point of the Chinese track, and from it diverge all the great routes towards China, the Ili country, and the cities both of Eastern and Western Turkestan.—*Yule, Cathay*, ii. p. 572.

MUSTARD SEED.

Khirdal, . . .	ARAB.	Sirshaff, . . .	PERS.
Kung-nyen, . . .	BURM.	Sirsun, Rajika, . . .	SANSK.
Kadi-tsai, . . .	CHIN.	Gan-aba, . . .	SINGH.
Sarson, Rai, . . .	HIND.	Kadughu, . . .	TAM.
Sawi, Sasavi, . . .	MALAY.	Avalu, . . .	TEL.

Mustard is from the two Latin words, *Mustum* and *Arlens*, and is in varied forms in European tongues. Black mustard is indigenous in almost every part of Europe and S. Asia; its seeds are small and roundish. A mustard seed was the Buddhist unit of long measure. Mustard seed is used as a condiment. The seeds are crushed between rollers, and then pounded in mortars and sifted. The residue in the sieve is called dressings or siftings; what passes through by a second sifting yields pure flour of mustard; by pressure, the dressings yield a fixed oil, which is used for mixing with rape and other oils. Immense quantities of wheaten flour are employed in the adulteration of mustard.

Mustard oil is expressed in various parts of India from the seeds of different species of *Sinapis*, especially from the black mustard seed. *S. glauca*, *S. bichotoma*, *S. toria*, *S. racemosa*, and *S. juncea* are also extensively cultivated in the east for their oil, and *S. alba*, *S. arvensis*, *S. nigra* are also grown. The oil is used in most parts of India in cookery, and is considered superior to all other oils for anointing the body, which it is supposed to invigorate. The seeds of the *S. alba* yield by expression 36 per cent. of a bright yellow, pleasant-tasted, edible oil, having a strong

smell and slight taste of mustard. The seeds of *S. nigra* yield only 28 per cent. of an oil in all respects similar to the above.

MUSTARD TREE of Scripture, according to Dr. Royle, is the *Salvadora Persica*, a native of the East Indies. But this is not generally accepted.

MUSTELIDÆ, a family of mammals belonging to the tribe Semi-plantigrada. They include the weasels and martens; and in S.E. Asia there are about five known species of the former, and twelve of the latter. See Mammals, p. 828.

MUSTER. **ANGLO-INDIAN**. A pattern, from Portuguese *Mostro*.

MUSTIKA, an amulet, which amongst the Malays of Java is always some very scarce substance, and is worn about the person to act as a talisman and ward off evil. The *Mustika Kerbo* or buffalo amulet is quite white, and round like marble, nearly an inch in diameter, and semi-transparent; it is stated to be found at Panggul. The *Mustika Waringin*, a calcareous concretion, is found at Ngadi Rejo; it is quite black, and a little smaller than the *Mustika Kerbo*. Amulets are, however, worn by almost all eastern nations. They are especially prized by Muhammadans, and both young and old wear them. They are usually put on the young to ward off disease and to protect from the evil eye, and consist of figures with numbers on pieces of paper, or Arabic words, often extracts from the Koran, engraved on pot-stone or silver or gold, and worn from the neck. They are also put over the door porch, or on the house wall.—*Jour. Ind. Archip.*, 1853.

MUSTUNG, an extensive valley of Baluchistan, to the south of the valleys of Quetta and Kanhee. It extends from about lat. 29° 30' to near 30° N., and its eastern boundary is nearly defined by the 67° of E. long. It is therefore about 40 miles in length, and varies in breadth from 5 to 8 miles, spreading out towards its upper end, and being gradually constricted towards its lower or southern extremity. It is bounded by parallel ranges running N.N.E. by S.S.W., of height from 500 to 800 feet. The range to the eastward is pierced by a pass leading to the *Dasht-i-be-Daulat*. Mustung has a healthy climate and fertile soil. It contains no Afghans; the fixed inhabitants are Dehwar, mixed with the Raisani, Sherwani, Muhammad Shahi, Bangulzai, Lari, and Sirpherra tribes of Brahui. The Bangulzai exclusively occupy Ispringi, but reside also at Shal and Mustung, and in winter repair to Talli near Lehri.

MU-SUH or *Muk-suk*. **PERS.** Sweet clover or lucerne, upon which the horses of Farghana were pastured.

MUT, also *Muter*, **HIND.**, *Carex Indica*, grows at a great altitude; is used to form those parts of the snow-shoes in Pangi and Lahoul which are most liable to be torn.—*Powell, Handbook*, i. 521.

MUTA. **HIND.** Muhammadans of the Shia sect marry by the *Muta* form. This may be for a mutually recognised temporary period, or a permanent marriage with a person of inferior rank in life.

MUTARFA. **ARAB.** A tax in the Madras Presidency on houses, trades, and professions. It was abolished 5th November 1856. In 1848, discriminating duties on goods carried in foreign vessels were abolished, and in 1850 the coasting trade was thrown open to all nations.

MUTAWALI. **ARAB.** The trustee of any religious building, a trustee of a mosque.

MUTHI. **HIND.** A handful, a right granted to religiouses to take a handful at harvest.

MUTHIA THUG, a class of Thugs who resided chiefly in Rajpur and Dinajpur, usually following the business of weavers, said to be so termed from giving their leaders a handful (*Muthi*) of rupees from each man's share, in addition to their own.

MUTH-THU or *Mut'ha*, **TAM., TEL.**, incorrectly written *Mutah* and *Mootah*, the subdivision of a district; in the Northern Circars, a large estate, including several villages, and corresponding with a *zamindari* in Bengal.

MUTHUNKA PILLOO. **TAM.** Grass corn. It grows wild, but was first cultivated in Chittur by Miss Pereira. It produces abundantly, and the grain is cooked in the same way as paddy and *ragi*.—*M. E. J. R.*

MUTHYAN-jo-ZOR, a popular exercise in Sind, of placing the fists on the ground, and raising up a boy or a man who stands upon them. *Chambo Wathan*, another feat, consists of interlacing the fingers, and trying to disengage them from the grasp of the adversary. *Pera* to *Uthan*, squatting on the hauns, lifting one leg off the ground, and then slowly rising up by means of the other; no easy task. *Kakk Khanan*, here the gymnast, in the squatting position with both arms behind the back, picks up with the lips a bit of straw placed on the ground before him.—*Burton's Scinde*, p. 290.

MUTIALAMMA, one of the non-Hindu goddesses of the Peninsula of India. See *Ammun*; *Hindu*.

MUTILLA ANTIGUENSIS. *Linn.* *Mutilla occidentalis*, the *Beer buti*, is a beautiful scarlet velvet coloured insect, about the size of a large pea, commonly found in rainy weather throughout British India. These insects are kept by the druggists, and native doctors use them against snake-bites, and in colic of horses. The family *Mutillidæ* is a genus of insects of the order *Hymenoptera*, comprising two genera, *Mutilla* and *Tiphia*.—*Honigberger*. See *Insects*.

MUTINY has occurred amongst the British Indian army on several occasions. In January 1766, double *batta* was abolished. It had been granted to the E. I. Company's army by Mir Jafar, in gratitude for their services. But on its abolition both officers and men mutinied, and it was only put down in fifteen days by the severe measures which Clive adopted.

In May 1764, Major (afterwards Sir Hector) Munro, on joining the army at Patna, found the European and Native soldiers extremely mutinous, and, on part of them deserting to the enemy, they were overtaken and brought back, and 24 of them blown away from guns. On that occasion four of the grenadiers stepped forward, and begged, as they had always had the post of honour, to be allowed to be first blown away.

In 1795, the European officers of the Bengal army broke out into open rebellion. Its cause was Lord Cornwallis' abolition of all offices of gain in the military branch of the service. The revolt was settled by the concession which Sir John Shore made to them.

Disaffection sprang up amongst the European officers of the Madras army, in the early

part of the 19th century, with whom a few regiments of sepoy sympathized, but it was quickly subdued.

In 1806, the native soldiers in the garrison of Vellore mutinied and massacred all their officers and the other Europeans, but in the early part of the same day, Colonel Gillespie galloped from Arcot and suppressed the rising. After the fall of Seringapatam in 1799, the family of Tipu Sultan were detained at Vellore, but, as they were supposed to have instigated the revolt, they were removed to Bengal.

On the 1st November 1824, a mutiny occurred at Barrackpur in the 47th Regiment Bengal Native Infantry, part of the 26th and 62d Regiments, when ordered to Burma. The commander-in-chief ordered them to be fired upon by artillery, attacked by the cavalry of the body-guard and British troops, and 440 of them were destroyed. Their ostensible grievance was that they could not obtain cattle for carriage, and that they ought to receive double batta when proceeding to Burma.

In 1857 the greater part of the native army of Bengal and several regiments of the Bombay army revolted. The first signs occurred near Calcutta, but the revolt continued by the outbreak of the native cavalry at Meerut on the 10th May 1857, and before the end of 1858 nearly all the Bengal army was swept away; but before this could be done, many of the predatory tribes and numbers of the civil population engaged in the rising, and a rebellion of nearly all Upper India was the result.

This revolt has been described by many writers, but chiefly by Sir John Kaye, who wrote a History of the Sepoy War, also by Colonel Mallett in his History of the Indian Mutiny, and by Mr. T. R. C. Holmes in his History of the Indian Mutiny, and of the disturbances which accompanied it among the civil population. The first overt acts were shown at Barrackpur, where the native soldiery planned to burn the houses, and then proceed to Calcutta to seize the fortress there, and take possession of the treasury.

The 19th Regiment sepoy refused to take the percussion-caps that were served out to them, and they were at once disbanded. The disgraced soldiers brought their colours to the front, piled their arms, stripped off their accoutrements, and, retaining their uniforms and taking their pay, marched off under an escort to Chinsurah, cheering as they went. A few days after, a sepoy of the 34th Bengal Native army, named Mungul Pandey, cut down his officer in the presence of the guard, without a finger being uplifted to prevent him.

At Meerut, on the 10th May, the sepoy broke into open mutiny. They threw open the jail, rushed through the cantonment, cutting down every European whom they met, and streamed off to stir up the native soldiery at Delhi. A rallying centre was given to the revolt by the possession of this historical city, and all that the Europeans could do before leaving Delhi was to blow up the arsenal. Throughout the cantonments of the N.W. Provinces of British India the sepoy revolted, usually without warning, sometimes after protestations of fidelity. The Europeans were massacred, occasionally also the women and children. The jails were broken open, and the

mutineers marched to the centres of the revolt. In the Panjab, Sir John (Lord) Lawrence and his civil and military officers, Montgomery, Macleod, Edwards, Nicholson, repressed and disarmed the sepoy serving there, but the Sikhs and Afghans remained loyal, and furnished an army for the recovery of Delhi.

The population of Oudh and Rohilkhand rose en masse, and with the soldiery occupied Sir Colin Campbell through two campaigns. The nawab of Bareilly and the begum of Oudh joined the mutineers. The crisis here was prolonged. But the centres of the conflict were at Delhi, Cawnpur, and Lucknow. The Cawnpur troops mutinied on the 6th June, and Dandhu Punt, the adopted son of Peshwa Baji Rao, styled Nana Rao and Nana Sahib, was proclaimed Peshwa of the Mahrattas. The Europeans, trusting a safe conduct from Dandhu Punt as far as Allahabad, evacuated Cawnpur, but all but a single boat's crew were destroyed; and on the 15th July, when General Havelock's army was near, 125 women and children were cruelly massacred.

The siege of Delhi began on the 8th June 1857. The rebels were 30,000 strong, and the British army never exceeded 8000 men. On the 14th September the assault was delivered. A little party of 2 lieutenants, 2 sergeants, a corporal, a bugler, 14 native and 10 Panjab sappers and miners, in broad daylight, under a shower of bullets from every loop-hole and from the wicket-gate in front of them, went forward with powder bags to blow up the Kashmir gate. Their destruction seemed certain, but with the loss of two, who were killed, and four wounded, one mortally, they accomplished their object, which is one of the noblest deeds on record in military history. Delhi was then entered in four columns of assault, but not until five days were the whole of the defences taken.

From the 14th to the 17th of September, the church, the cutcherry, the college, the kotwali, the magazine, and the Delhi Bank house were one after the other carried and recovered. On the 18th the line of communication between the magazine and the Kabul gate was completed. On the 19th the Burn bastion, near the Lahore gate, was taken possession of by a surprise.

The old king of Delhi, Suraj-ud-Din Hyder Shah, Ghazi, and two of his sons, were captured, and the two latter shot by Captain Hodson of the Bengal army; while the king, who on the 11th May 1857 had proclaimed himself emperor of India, was sent prisoner to Rangoon, where he died in 1862. The mutineers who fled from Delhi moved upon Agra in a formidable mass, followed by a flying column under Colonel Greathed, who defeated a body of them at Bulundshahr, destroyed the fort of Malagarh, and scattered a body at Aligarh. Finally, Lucknow was relieved, and its garrison strengthened by Sir James Outram and General Havelock, until, in the month of March 1858, Sir Colin Campbell advanced on that city, after severe fighting, and made himself master of the south-eastern suburbs, inflicting great loss on the mutineers, 2000 of them having fallen at the fight at the walled garden called the Sekundar Bagh. On the 2d July, Sir Henry Lawrence, Commissioner of Oudh, had occupied the Residency at Lucknow, and two days later he was mortally

wounded by a shell. The garrison was relieved on the 25th September by Havelock and Outram, but it was re-invested by fresh swarms of rebels, till Sir Colin Campbell (Lord Clyde) withdrew the garrison, 16th November 1857, and Lucknow was again re-occupied in March 1858.

Sir Hugh Rose (Lord Strathnairn), with an army from Bombay, fought his way from the Southern Mahratta country to Central India. Among his opponents were the rani of Jhansi and Tantia Topi; the former died fighting at the head of her troops in June 1858.

When the rebellion in Central India was extinguished, when Saugor was relieved, and Ratgarh as well as Shahgarh captured, and when Chanderee, Kalpee, and Jhansi had fallen, and Gwalior re-occupied by its chief, the maharaja Sindia restored to his capital, and with the final relief of Lucknow, the mutiny may be said to have been extinguished. On the 30th November 1858 the last body of rebels surrendered or passed the Nepal frontier. The last who made a stand was Dandhu Punt, Nana Rao. He was surprised and attacked in the vicinity of Bankee, and was driven through a jungle, which he tried to defend, and finally into and across the Rapti, from which date he has not been heard of.

The Indian Mutiny is one of the greatest dramas in the history of the world. Rome in all her might never contended with a greater peril, nor was ever arrayed against a mightier host. The successful manner in which the British met and sustained it will ever be quoted to the renown and glory of the military successes of Great Britain. The contest for supremacy was severe and long continued.

In May 1857 there were in India 45,000 European soldiers, 244,000 native soldiers, and 80,000 semi-military police.

About 250,000 native soldiery were arrayed against the British power in 1857. Of the British forces were 45,000 Europeans, and about 60,000 reliable native soldiery. These last were, before the end of 1857, increased to about 150,000 native soldiers, by the addition of the Sikh army from the Panjab, and before July 1858 there were over 80,000 British soldiers in India. After that revolt the native army began to be reduced, and by November 1866 it fell to 135,000 men, with only 12 guns, against 150 in 1857.

Claims were advanced by the European soldiers of the E. I. Company's army on the 2d May 1859, which resulted in about 10,000 soldiers taking their discharge. They had been enlisted to serve the E. I. Company, and when, in 1858, India was attached to the British sovereign, they claimed that the agreement was annulled, and this view was admitted to be correct.—*Oriental Herald*, 1825.

MUTLAH RIVER is a branch of the Ganges next to the eastward, and second in importance to the Hoogly branch. Canning town was attempted to be built there.

MUTTRA or Mathura, in lat. 27° 30' 13" N., and long. 77° 43' 45" E., the headquarters town of a district in the N.W. Provinces of British India. The town is on the right or western bank of the Jumna. The district comprises an irregular strip of territory lying on either side of the river. The central portion of the district for 84 cos around Gokal and Brindaban is called Brij

Mandal. It is one of the most sacred spots in the mythology of the Hindus of the earliest Aryan times, connected with the towns of Govardhan, Gokal, Mahaban, and Brindaban. It was here that Krishna and Bala Rana pastured their herds. It is famous in the legendary history of Krishna as the stronghold of his enemy raja Kansa; and it is noticed by Arrian, on the authority of Megasthenes, as the capital of the Suraseni. Surasena was the grandfather of Krishna, and from him Krishna and his descendants, who held Mathura after the death of Kansa, were called the Suraseni. Arrian says the Suraseni possessed two great cities, Methora and Klisobora, and the navigable river Jobares flowed through their territories. Pliny names this river Jomanes, that is, the Jumna, and says that it passed between the towns of Methora and Klisobora. Ptolemy mentions only Mathura, under the form of Modura, *Μαδούρα*, to which he adds *ἡ τῶν θεῶν*, that is, the city of the gods, or holy city.

The Greeks are said to have seen the Hindus worship Bacchus in ancient Methora. This may possibly refer to a Greek-clad statue, which, with his portly carcase, drunken lassitude, and vine-wreathed forehead, is considered to be the well-known wine-bibbing Silenus. The statue was discovered along with a Bacchic altar in 1836. Any Buddhist or Greek god has long ceased to be worshipped in Muttra. The most favourite local deity now is Krishna, who is adored in nearly all the temples, abounding in the town which owns his exclusive jurisdiction. Taking Muttra as a centre, the circle described by a radius of 84 miles would give the extent of ancient Vrij, the seat of all that was refined in Hinduism, and the language of which, Vrij-boli, was the purest and the most melodious dialect of India. In all Vrij the most classic spot is Brindaban. As the birth-place of Krishna, Muttra is as sacred to the Vishnavites as Bethlehem is to the Christians. The most sacred spot in all Muttra is the Bismar-ghat, where Krishna and Baldeo rested from their labours of slaying Kansa, and dragging his corpse to the river side. At the Bismar-ghat is annually held a great bathing mela or assembly, called Jumna-ki-Burki, on which occasion the gathering of men from near and remote parts of India exceeds more than 100,000. To the Chowbay race the occasion proves a great harvest of gain. The pittances offered to the images of Krishna and Baldeo at the ghat sometimes amount to 30,000 or 40,000 rupees.

During the Buddhist period Muttra became a centre of that faith. In Hiwen Thsang's time there were only five Brahmanical temples in Muttra; in the middle of the 19th century there was only one Jain temple in Brindaban. Fa Hian and his companions halted at Muttra for a whole month, during which time the Buddhist clergy held a great assembly, and discoursed upon the law. After the meeting they proceeded to the stupa of Sarinutra, to which they made an offering of all sorts of perfumes, and before which they kept lamps burning the whole night. In Hiwen Thsang's time the number of towers and monasteries was the same, but that of the monks had been reduced to 2000. The king and his ministers were all zealous Buddhists. In the 7th century Muttra was the capital of a large kingdom, which is said to have been 5000 li, or

833 miles, in circuit. After the invasion of Mahmud of Ghazni, Muttra city fell into insignificance. During the 18th century the district was held by the Jat of Bhurtpur, but in 1757, during Ahmad Shah's invasion, Sirdar Jahan Khan plundered the city, and massacred all the inhabitants. The principal surviving edifices include the Sati-burj (or Tower of the Faithful Widow), built by raja Bhagwan Das in 1570. The city is surrounded by numbers of high mounds, the remains of extensive buildings, which, having been dug over for ages in search of bricks, are now mere heaps of brick-dust and broken bricks. Contiguous to Muttra are those great sandstone quarries, which for ages have furnished materials to the architects of Upper India for building the houses, shops, temples, and ghats of its principal cities. In Muttra the ghats are light and graceful; in Benares they are severe and simple.—*Cunningham's Ancient Geography of India*, p. 373; *Tr. of Hind.* ii. p. 22.

MUTTUK, also called Moran, also Mowa Moria, are tribes in Upper Assam, subject to a chief styled Bar Senapati. The Muttuk dwell N.E. of the Singpho, to the S. of the Lohit or Brahmaputra. They are a branch of the Singpho group, the others being the Singpho and Khamti. The Bar Senapati in May 1826 acknowledged the supremacy of the British, and bound himself to supply 300 soldiers in time of war. The management of the country was left in his own hands, except as regards capital offences. In January 1835 the obligation to supply troops was commuted to a money payment of Rs. 1800 a year. In 1826 similar agreements were made with the Khamti chief of Suddeya, but in 1839 they attacked the town of Suddeya, and many persons, as also Colonel White, the Political Agent, were slain. Agreements were also made in May 1836 with the Singpho tribes who were implicated in the Khamti rising in 1839, but they were allowed to surrender under conditions. Many of the Singpho clans have become extinct, and the main body have left Assam for Hukong in Upper Burma.—*Aitcheson's Treaties*, etc.

MUTUWAKKAL is the title of the tenth khalif of the house of Abbas. His name was Abu-l-Fazal Jafar. He became khalif A.D. 847, A.H. 232. Mutuwakkal was very intolerant, especially towards Jews and Christians, but he also forbade the pilgrimage to Karbala, and razed the graves there of Husain and the other martyrs.

MUZAFFARGHAR, a small town in the Multan division of the Panjab, built on the right bank of the Chenab, in lat. $30^{\circ} 4' 30''$ N., and long. $71^{\circ} 14'$ E. The district occupies the extreme southern aspect of the Sagor Doab, and has an area of 2954 square miles, and a population of 295,547 souls, mostly Muhammadans, with Arora, Brahmans, Baluch, Jat, Pathan, Rajput, and Sikhs.

MUZAFFARNAGAR, in the Meerut division of the North-West Provinces, is built on the left bank of the West Kali Nadi, in lat. $29^{\circ} 18' 10''$ N., and long. $77^{\circ} 44'$ E., and 900 feet above the sea. The central portion of the district consists of an elevated plateau, cut into three portions by the Hindan and Kali Nadi. The division lying close along the bank of the Ganges is covered in its northern part by one continuous swamp, caused by the overflow of the little river Solani and percolation from the Ganges Canal. South of

this marshy tract stretches the Khadar or low-lying valley of the Ganges, over which the stream runs freely, frequently changing its course, and rendering cultivation hazardous or impracticable. The greater part is densely covered by coarse grasses, interspersed with occasional clumps of tamarisk.—*Imp. Gaz.*

MUZARI, a tribe of Baluch, on the western bank of the Indus, near Shikarpur. They were formerly predatory, and rode mares in their chupaos or forays. They formerly dwelt in the hills, but migrated to the plains, where they have since remained. Their headquarters are at Rojha, below Mithunkote, and near the confines of Sind. When Mithunkote was conquered by the Sikhs, they harassed the newcomers, and laid waste the acquisition. A strong Sikh force moved against them, and thus the lower extremity of the Dehrajat, down to Shawullee, was then added to the Sikh dominions, and at annexation became included in British territory.

MUZIRIS. Cranganore, on the Malabar coast, in lat. $10^{\circ} 12'$ N., is built on the Cranganore or Aycotta river. Cranganore seems to have been one of the most ancient capitals of Malabar, and in some of the ancient copper deeds appears to be called Muyiri-Kodu, which a writer in the Madras Journal indicates as perhaps identifying it with the classical Muziris? Gibbon says every year about the summer solstice a fleet of 120 vessels sailed from Myas Hormus, a port of Egypt on the Red Sea. The coast of Malabar or the island of Ceylon was the usual limit of their navigation, and it was in those markets that the merchants from the more remote parts of Asia expected their arrival. In classical days the extremity of the Peninsula was the entrepot of commerce between the east and the west. During the reign of Claudius, a fleet of ships left Myas Hormus for India, to the Malabar coast or Ceylon. They sailed about the time of the summer solstice, and returned the following December or January, bringing silk, pearls, and spices.—*Cunningham's Sikhs; Horsburgh; Yule, Cathay*. See Musiris.

MYAL trees of Australia are species of *Acacia*, viz. *A. acuminata*, *pendula*, and *stenophylla*.—*A. Cunn.; Von Mueller*.

MYAM-MA. BURM. The Burman race. This word is the source of the European name.

MYEN-MO. BURM. In Burmese cosmology, the great mountain Maha-Meru, surrounded by its seven concentric and graduated ranges, in the centre of this Sakwala or mundane system, which again is encompassed by a circular wall of rock called the Sakwalagala. One of the Burmese feasts, at the termination of their Wa or Lent, is called Tsee-mee-myen-mo, or Myen-mo, lamp lights. The streets are illuminated, and in them are exhibited high round structures, to represent Mount Myen-mo, covered with little figures of its spiritual inhabitants. This mythical central mountain is several millions of miles high, around which, according to the Burmese theory of the solar system, are firmly fixed four great islands, on the southern of which Asia and Europe are situated, the sun which lights them revolving round the central mountain. Myen-mo mountain forms the centre of the Sakwara or Sekhya system of cosmogony. One of the four great islands which surround it is Jambu-dipa, the world we live in.—*Yule*, p. 172.

MYGALE, Mason Spiders, Crab Spiders. *M. avicularia* builds a strong white web, and Mr. Bates found two finches involved in it, one dead, the other dying. Madame Merian, in a work on the insects of Surinam, published in 1705, figured the *M. avicularia* in the act of devouring a humming-bird. *M. fasciata* is a well-known Ceylon spider. By day, it remains concealed in its den, whence it issues at night to feed on larvæ and worms, cockroaches and their pupa, its food consisting of soft insects and annelids. It makes its nest in walls, trees, or sheltered by stones. It is lined throughout with a tubular silk tapestry, so fine and closely woven as to be water-tight, and at its mouth is a little platform stayed by braces. In the rainy season the platform is extended so as to form an awning. *Mygale fasciata* is sluggish in its habits, and disgusting in its form and dimensions. Its colour is a gloomy brown, interrupted by irregular blotches and faint bands (whence its name); it is sparingly sprinkled with hairs, and its limbs, when expanded, stretch over an area of 6 to 8 inches in diameter. Europeans in Ceylon have given it the name, and ascribed to it the fabulous propensities, of the tarantula. This hideous creature does not weave a broad web or akin or net, like other spiders, but nevertheless it forms a comfortable mansion in the wall of a neglected building, the hollow of a tree, or under the eave of an overhanging stone.—*Tennent's Ceylon*; *Bates' Nat. on the Amazons*.

MYHERE, a Feudatory State, originally a dependency of Rewah. On the occupation of Bundelkhand, thakur Durjun Singh was confirmed in his possession on his executing a deed of allegiance. The area of Myhere is about 400 square miles, the population 70,000, and the revenue Rs. 74,200.

MYLABRIS, a genus of insects of the order Coleoptera, possessing properties identical with those of the blistering beetle *Cantharis vesicatoria*. The ancients chiefly employed two species of Mylabris, one of which, the *M. Cichorii*, the Telini of the Hindus, has been used for ages, and is so at present by the European and native physicians of India and China. The blistering flies of India are chiefly the *M. Cichorii*, the *Cantharis gigas*, and the *C. violacea*. *M. Cichorii* is about an inch long, and one-third broad; the elytræ or wing covers are marked with six cross stripes of deep blue and russet brown. The Buprestis of ancient writers is met with in the bazars under the name of the golden fly (*sona-makhi*). The *Cantharis violacea* is often mixed with specimens of *Mylabris* in the bazars. The Telini fly, if procured before the mites have commenced its destruction, yields on an average one-third more of cantharidine than the Spanish fly of the European shops. The blue fly is of uncertain strength. *M. trianthema*, so called from its being usually found on the plant named *Trianthema decandra* (*Biscopra*, HIND.), was described by Dr. Fleming. Some prejudice exists against the article on account of its alleged excessive severity of action. *Mylabris pustulata* and *M. punctum* are found in large quantities at certain seasons all over Southern India. The officinal blistering fly has had a variety of names. It was called *Meloe vesicatorius* by Linnæus, *Lytta vesicatoria* by Fabricius, and *Cantharis vesicatoria* by Geoffroy, and now by the *Pharmacopœias*. The name

καυθαρίς, was applied by the Greeks to a species of coleopterous insect which possessed the properties of the officinal blistering beetle, but it was distinguished by yellow transverse bands. This is the characteristic of species of *Mylabris*, one of which, *M. Fusseleni*, occurs in the south of Europe, and another, *M. Cichorii*, throughout the east. In India it is called *Telee* or *Telini*, and *Teli makhi*, or the oily fly, from the oil-like exudation which the insects of this genus give out from the articulations of their legs when seized.

MYLABRIS CICHORII. Linn.

Pan mau, . . .	CHIN.	Telini, . . .	HIND.
Teli makhi, . .	HIND.	Meloe telini, . .	LAT.

Blistering beetle of Southern Europe, Egypt, Southern and Eastern Asia, is obtainable from June till December in the granite district of the Nizam's territories, and can be gathered for a rupee a pound. Abounds in Bengal, Behar, Hyderabad, and Oudh, particularly in the rainy season, during which period, almost everywhere, it is seen feeding on the flowers of cucurbitaceous plants. In China they are met with on species of *faba*, *dolichos*, *euonymus*, *silene*, and other plants. It is considered in China useful in scrofula, renal ailments, syphilis, and hydrophobia.—*Smith*; *Hornigberger*; *Ains.*

MYLABRIS SCHONHERII. —? Tsau-mau, CHIN. Occurs in China, and is found on the zizyphus.—*Smith*.

MYLABRIS TRIANTHEMA is frequently found in fields overrun with the *Trianthema decandra*, *Willd.* It is now much used as a safe and efficacious epispastic. Its peculiar qualities were discovered by Dr. Adam Burt, Superintending Surgeon of the Bengal Establishment, in 1809. He first noticed the insect in fields around Muttra. It, however, abounds in every part of the Doab, and in the districts on the right bank of the Jumna.—*Ainslie's Mat. Med.* p. 297.

MYLAPUR, or Saint Thomé, a suburb of the city of Madras. A legend relates that Mylapur formed the scene of the labours of the Apostle St. Thomas. The shrine, regarded as the tomb of the apostle, was visited by various travellers in the 13th and 14th centuries. It attracted the Portuguese to this spot, and gave the Portuguese name to it. A relic stated to be that of the apostle is shown in the cathedral.—*Imp. Gaz.*

MYLAY, a word prefixed to the names of coins in the south of India, as *Mylay fanam*.

MYLITTA, the goddess of the Babylonians, at whose temple every woman had once in her life to sacrifice, as the necessary preliminary to marriage.

MYLITTA AUSTRALIS, of Tasmania, one of the *Panicææ*. Its root is called native bread, weighs from 1 to 11 lbs.

MYLITTA LAPIDESCENS. *Smith*. Lui-hwan, Fuh-ling, CHIN. This fungus of China resembles the truffle and the fruit of the *Gynocardia odorata*. They are dug up from the ground. They are similar to the vegetable substance dug up out of the chalk beds in the mountains separating Travancore from Tinnevely.—*Smith, M.M.C.*

MYMENSING, a district in the Dacca division of Bengal, between lat. 23° 56' and 25° 25' N., and long. 89° 43' and 91° 18' E. The district furnishes the best sunn (*Orotalaria juncea*), and the best pat or jute (*Corchorus olitorius*), and maestee pat (*Hibiscus cannabinus*) grown in Bengal. The most numerous race are the semi-Hinduized

Chandal, who are fishermen, cultivators, day labourers; they are greatly despised. Their touch of food or drinking water is deemed to render it impure. The Hajang and the Garo are also in the district. The Kaibartta are agriculturists, and Brahmans and Kayasths make up the population.

MYNA, a name given by the Muhammadans of India to the species of several genera of birds of the Sturnidae (or starling family). The grackles (commonly known as hill mainas) are very different from the saliks (or common house maina and its congeners, genus *Acridotheres*); and both again from the Gulabi maina of the Bengalis (*Pastor roseus*), or the starling-like ablaka (*Sturnopastor contra*), the true starlings (*Sturnus*), the Pawes (*Temenuchus*), and others.

Telia maina, *Sturnus vulgaris*.

Ablak maina, *Sturnopastor contra*.

Common maina, *Acridotheres tristis*.

Java maina, *A. Javanicus*.

Gingi maina, *A. ginginianus*.

Pahari maina, *A. fuscus*.

A. cristatellus of China.

Bahmani maina, *Temenuchus pagodarum*.

Grey-headed maina, *T. Malabaricus*.

White-headed maina, *T. Blythii*.

Gulabi maina, *Pastor roseus*.

Konkani or southern hill maina, *Eulabes religiosus*.

Nepal or southern hill maina, *E. intermedia*.

Acridotheres tristis is often domesticated, and will follow its master about the house like a dog. It soon learns to pick up words and sentences. *A. fuscus* has similar habits.

MYNPAT, a table-land about 30 miles S.E. from Sirguja town, and about 3000 or 3500 feet above the sea. On the S.W. frontier of Bengal are Chutia Nagpur, Sirguja, Palemow, Ramgarh, Hazaribagh, Mynpat, and Amarkantak. The elevation of Chutia Nagpur is 3000 feet, with hills running E. and W., but of little height. Sirguja is mountainous, rising 600 to 700 feet above the level of Chutia Nagpur. Palemow district is very mountainous. Hazaribagh town, lat. 24° N., long. 85° 54' E., 1750 feet. Slope of country to S. towards Sumbulpur; N. and E. parts of district very mountainous, but level and even depressed towards the Mahanadi. Sumbulpur town only 400 feet. Orissa table-land then rises on the southern side of the Mahanadi, in some places to 1700 feet, backed by the chain of E. Ghats. Amarkantak, jungly table-land, lat. 22° 40' N., long. 81° 5' E., 3500 feet. The soil in the plains is generally fertile, producing abundant crops of wheat, barley, rice, pulse, excellent vegetables, cotton, and sugar-cane. The uncultivated parts are overrun with a coarse grass.

MYNPURY, a town and district in the Agra division of the N.W. Provinces. The district lies between lat. 26° 52' 30" and 27° 30' N., and long. 78° 27' 45" and 79° 28' 30" E.; area, 1696 square miles. The town is on the banks of the Esun, 111 miles N.W. from Cawnpur, in lat. 27° 14' N., and long. 79° 4' E., 620 feet above the sea; population, 21,177. Of the Hindu religionists, the Rajput thakur land proprietors are a very important race; besides these are Brahman and Banya and Jain religionists; the Ahir, Chamar, Kachhi, Lodha, Gadarya, Kahar, and some Muhammadans, mostly poor. The Chauhan Rajputs, and the Phatta, Ahir, and other races, were largely guilty of infanticide. In 1843 there was not a

single female child amongst the Chauhan. The Infanticide Act of 1870 was introduced, and in 1875, 276 villages were under it.

MYO. BUM. A district, a town, a township. Myo-obe, a native officer, head of a township possessing civil, criminal, and revenue jurisdiction.

MYOPORACEÆ. *Lindl.* An order of plants comprising two species of *Myoporum*. *Myoporum tenuifolium* is the Naiho tree of the Sandwich Islands; the heart-wood is fragrant, but less so than sandal-wood, and is less esteemed in the China market.—*Bennett*.

MYOSOTIS ARVENSIS. *Sibthorpe*. A plant of the borage tribe, of Europe, Asia, Africa, and N. America. *M. palustris*, great water scorpion-grass, or forget-me-not, is a native throughout Europe, and also of Asia and North America. In Great Britain it is found in humid meadows, bogs, banks of rivers, rivulets, and ditches. This plant has a large bright blue corolla, with a yellow eye. It is a beautiful plant, and when once seen will be seldom forgotten. Its common name is forget-me-not. Amongst the young it is regarded as emblematical of true affection.—*Eng. Cyc.*

MYRICACEÆ. *Lindl.* The Gale tribe of plants, comprising in India the genera *Myrica* and *Putranjiva*. Dr. Wight gives *Myrica integrifolia* and *M. Nilagirica*, and Fortune says the yang-mae of China appears to be a species of *Myrica*, allied to the Himalayan *M. sapida*. He believes the Chinese have both varieties, but use the Indian one as a stock for grafting upon. The fine variety of yang-mae is grafted upon the wild kind, which the Chinese call the san or hill variety of *M. sapida*. The fruits of *M. integrifolia* and *M. sapida* are eaten. *M. cerifera*, the wax myrtle, abounds in the Bahama Islands, and might be introduced into India. The shrub produces a small green berry, which, like the hog plum, puts out from the trunk and larger limbs. Much patient labour is required in gathering these berries, and from them is obtained a beautiful green wax, which burns very nearly, if not fully, as well as the spermaceti or composition candles. The method of procuring this wax is by boiling the berries in a copper or brass vessel for some time. Iron pots are found to darken and cloud the wax. The vessel after a sufficient time is taken from the fire, and when cool, the hardened wax, floating on the top of the water, is skimmed off. *M. cordifolia*, the wax tree of Louisiana, contains immense quantities of wax.—*Fortune; Wight*.

MYRICA GERMANICA. *Desf.*

Kathi, . . .	CHENAB.	Hambukh, . . .	KANGRA.
Bis, . . .	JHELUM.	Joraktsee, . . .	LADAKH.
Shalikal, . . .	KANGRA.	Humbu, . . .	SUTLEJ.

Not uncommon in various parts of the basins of the Jhelum, Chenab, and Sutlej, and in Spiti and Ladakh, from 6000 to over 16,000 feet.—*J. I. Stewart, M.D.*

MYRICA INTEGRIFOLIA, *Rozburgh, Fl. Ind. iii. p. 765*, from the N.E. frontier and Khasya mountain; seems to be different from *M. sapida*; its fruit, kai-phal, is acid, and used for pickling.—*O'Sh.*

MYRICA SAPIDA. *Wall.* Box-myrtle.

Kai-phal, . . .	HIND.	Kai-daryamu, . . .	TEL.
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This tree occurs in different parts of the Himalaya, from the Sutlej to Nepal and Sylhet. The

MYRICARIA ELEGANS.

same, or a nearly allied species, is found in China and Japan. The fruit is edible, with a sweetish-bitter taste; it ripens in June. In the Himalaya it is generally met with at an altitude of from 4000 to 6000 feet. On the Lower Sutlej it is common, and a few trees may be seen at from 8200 to 6000 feet up to the Ravi. Its bark is exported to the plains as a dye and as medicine. It is aromatic and stimulant, and a favourite native medicine. The fruit has not much flesh, but is a pleasant sour-sweet, and is mostly used in sherbets.

MYRICARIA ELEGANS. Royle.

Humbu, Umbu, of . . . LADAKH, SUTLEJ.

This is one of the Tamaricaceæ. Dr. Stewart found it at 9000 feet sparingly on the Sutlej, and it grows from 10,000 feet on the Upper Chenab to 15,000 in Ladakh. The leaves are often covered with a saline efflorescence; in Lahoul its leaves are applied to bruises, etc. The twigs are in Ladakh browsed by sheep and goats.

MYRIOGYNE MINUTA. Less.

Cotula minuta, Willd.	G. decumbens, Desf.
C. cuneifolia, Willd.	Artemisia minima, Thunb.
Grangea cuneifolia, Poir.	Dicrocephala minuta, L'H.
G. minuta, Poir.	Nak-chikni, . . . HIND.

India, Madagascar, Japan, New Holland. Considered by natives a hot and dry medicine, useful in paralysis, pains in joints, and special diseases, also as a vermifuge. It promotes sneezing; hence its vernacular name.—Roxb.; Powell; Voigt.

MYRIOPHYLLUM VERTICILLATUM. L.

Water-milfoil, . . . ENG. | Punatau, . . . TEL.

A small aquatic plant, the flowers of which become detached and swim on the surface of the water. Sugar-refiners cover their moist sugar with the plant, as clay was used in the West Indies. Willdenow describes *M. indicum*, and Roxburgh notices *M. tetrandrum* and *M. tuberculatum*; the latter grows on the borders of lakes and other moist places near Calcutta, and is in blossom most part of the year.

MYRISTICACEÆ, Lindl., the nutmeg tribe of plants, are trees of the Moluccas, Cochinchina, Java, Ceylon, the ultra-Gangetic Peninsula of India, the intra-Gangetic Peninsula of India, S. America, Madagascar, Aleppo, Mauritius, Chittagong, the Khassya mountains, and New Holland. The nutmeg of the shops is the seed of *Myristica officinalis*. Other species bear fruit that may be employed as a substitute, but they are all inferior to the real oriental myristica. The better known species of the E. Indies are—

<i>Myristica moschata</i> , Thunb., Moluccas.
<i>M. Horsfieldii</i> , Sprenger, Ceylon, Java.
<i>M. tomentosa</i> , Thunb., Moluccas, Malabar.
<i>M. peltata</i> , Roxb., Moluccas.
<i>M. amygdalina</i> , Wall., Moulmein.
<i>M. spicata</i> , Roxb., Moluccas.
<i>M. parviflora</i> , Roxb., Moluccas.
<i>M. sphaerocarpa</i> , Wall., Martaban.
<i>M. sylvestris</i> , Telf., Mauritius.
<i>M. irya</i> , Gertner, Andamans.

—Voigt, p. 10.

MYRISTICA AMYGDALINA. Wall. Tounge-sa-ga, BURM. A Tenasserim tree. The fruit has none of the aroma of the nutmeg; the timber is large, and is used by the natives in house-carpentry.

MYRISTICA CINEREA. Wight, Gibson.

Ran jai-phal, . . . MAHR.	Jadakaia chettu, . . . TEL.
Sandikal maram, . . . TAM.	Tadikaia chettu, . . . "

MYRISTICA MOSCHATA.

A tall and straight tree, usually with a clean bole, found in the Bombay green-wood jungles or raeas, above and below the ghata. It is not sufficiently common, nor found generally in situations easy of access, so as to allow of its being used for household or agricultural purposes.

MYRISTICA CORTICOSA. Lour.

<i>M. globularia</i> , Lam.	<i>M. misslonia</i> , Wall.
<i>M. glauca</i> , Bl.	<i>M. angustifolia</i> , Roxb.
<i>M. lanceolaria</i> , Wall.	<i>Knema corticosa</i> , Lour.

A lofty, very large, erect, and handsome tree, common in all the western moist forests of the Peninsula of India, up to 3000 feet elevation, from South Canara down to South Travancore, very abundant about the foot of the Neilgherries west side (near Nellicuta), and about the Tinnevely ghata. It grows also in the east part of Bengal, Burma, the Malay Peninsula, Java, Borneo, and Cochinchina.—Beddome, Fl. Sylv.

MYRISTICA FARQUHARIANA. Wall.

Pindee, CAN. Is a very abundant tree in the dense moist forests in the plains and ghats of S. Canara and Coorg, up to an elevation of 1500 or 2000 feet. It is also found on the Tamber-cherry ghat in the Wynad.—Beddome, Fl. Sylv.

MYRISTICA FATUA. Hout. The wild nutmeg tree of commerce, a native of Banda. Its nuts are often substituted for the true nutmeg. *M. fatua*, Suzz., is a native of Guiana, W. Indies, and Surinam.

MYRISTICA LAURIFOLIA. H. F.

<i>M. Ceylonica</i> , D. C.	<i>M. laurifolia</i> , D. C.
<i>M. diospyrifolia</i> , D. C.	

This is a very handsome tree. It is the commonest wild nutmeg tree in the Madras Presidency, and is to be found in all the western forests of the Peninsula up to 5000 feet, and it is common in Ceylon. Its nutmeg and mace are of no value.—Beddome, Fl. Sylv.

MYRISTICA MAGNIFICA, Bedd., is a conspicuous tree, with a lofty, straight trunk, and is one of the most magnificent trees in the southern parts of the Madras Presidency. In Travancore it is abundant in the dense moist forests, quite in the plains not far from the foot of the ghats round about Mimuti, near Colatoorpalay. Every sapling is furnished with large roots, proceeding from the base of the trunk up to 6 or 8 feet from the ground, and these form immense buttresses in the old trees, many of which are much over 100 feet high, with a perfectly erect trunk of 80 or 90 feet in length, and of great girth.—Bedd.

MYRISTICA MALABARICA. Roxb. Kanagi, CAN. A rather small but very elegant tree, very common in the dense moist forests in the plains of S. Canara and N. Malabar, not far from the ghats.—Beddome; Brandis.

MYRISTICA MOSCHATA. Thun. Nutmeg.

<i>M. fragrans</i> , Hout.	<i>M. officinalis</i> , Linn.
<i>M. aromatica</i> , Lam.	

Jowz-ut-teib, . . . ARAB.	Jowz-bewa, . . . PERH.
Za-te-pho, . . . BURM.	Jatapala, . . . SANSE.
Jaephah, . . . HIND.	Jadikaia, . . . TAM.
Pala, Buwahpala, MALAY.	Jadikaia, Jaji kaia, TEL.

The Mace.

Buzbas, Bisbasah, ARAB.	Bunga-pala, . . . MALAY.
Jyttee, . . . BENG.	Jatiputri, . . . SANSE.
Jae-putri, . . . DUKH.	

A tree with small, pale yellow, and inodorous flowers, successfully cultivated in Sumatra, Bencoolen, and Penang. The girth is 6 to 10 inches

a foot above the ground. It branches like the laurel, and its loftiest sprays are frequently 50 feet high. The fruit when ripening resembles a peach, and on removing the epicarp or fleshy outer rind is seen a spherical nut, black, clasped by a fine branching aril, of a vermilion colour, which is the mace of commerce. When ripe, the fruit is picked, the outer part removed, the mace taken off and dried in shallow baskets in the sun. The nut contains a volatile as well as a fixed oil. Nutmeg butter is prepared by beating up the nutmegs, enclosing the paste in a bag, and exposing it to the vapour of water, and afterwards expressing the fat by means of heated plates. The nutmeg tree is monocious as well as dioecious, but no means is known of discovering the sexes before the period of inflorescence. Upon an average, the nutmeg tree fruits at the age of 7 years, increases in produce till the 15th year, and is said to continue prolific for 60 or 80 years. Seven months in general elapse between the appearance of the blossom and the ripening of the fruit; and the produce of one bearing tree with another, under good cultivation, in the 15th year, may be calculated at 5 lbs. of nutmegs and 1½ lbs. of mace. It bears all the year round, but more plentifully in some months than others, and generally yields more abundantly every other year. It is necessary that the roots of the trees during their growth should be kept well covered with mould, for they have a tendency to seek the surface. The growth of the lateral branches is to be alone encouraged, and all suckers, or dead and unproductive branches, are to be removed with the pruning knife, and the lower shoots lopped off, with the view of establishing an unimpeded circulation of air.

The aril, arillus, or mace, is thick, between horny and fleshy. The smell and taste of the arillus are peculiarly fragrant and agreeable. It softens, but does not dissolve in the mouth. Beneath the arillus is found a bony shell, which covers the almond or kernel; this shell encloses the nutmeg of commerce.

The odour of the nutmeg is most agreeably aromatic; its taste hot, and analogous to the smell. The nut readily divides under the teeth, and is partially soluble in the saliva.

MYRISTICA TOMENTOSA. *Thunb.*

M. Malabarica, *Lam.* | Male nutmeg tree, *ENG.*

A tree of the Moluccas, Malabar, S. Konkan, with small yellowish flowers. The fruit is downy, its substance fleshy, solid, and firm. The kernel is covered by a hard shell provided with a pale arillus; the kernel is 1½ to 2 inches long, elliptical; the parenchyme devoid of marbling. Its odour is weak, flavour disagreeable. Its mace is distinguished from the true mace by being formed of three or four regular bands united at the summit. The oils are so inferior that the male nutmeg is but of little commercial value.—*O'Sh.*

MYRMECODIA, *sp.*, a parasitic plant on low jungle trees of Borneo. The young seedlings when about an inch in height are punctured by an ant, from which the stem enlarges and eventually becomes hollow, and the ants then shelter themselves within, but rush out and resent any attack on their nest.—*Burbridge*, p. 11.

MYRMELEON, a genus of the ant-lions of India. Ceylon seems to have four species peculiar to the island, viz. *Palpares contrarius*,

Walker, *Myrmeleon gravis*, *Walker*, *M. dirus*, *Walker*, *M. barbarus*, *Walker*. The form of the larvæ at the lower part resembles that of a spider, but the head is armed with a sharp, strong pair of claws. They form, in fields, gardens, and roadways, small cup-shaped cavities, with exquisitely smooth edges and sides, at the bottom of which they lurk, so that any insect approaching near immediately falls below to the ambush, and is seized and destroyed. Their excavations are usually carried on at night, and in the process they throw up the sand and gravel to a considerable height and distance, the soil around their cups being very level. They often throw up a particle of sand towards any adhering insect, which, by moving the mass, brings down the insect with it. One of the large black ants was seen to fall into one of the cups, and was seized by the ant-lion, but its comrades adhered to the captive to release it.—*Walker*, in *Tennent's Ceylon*.

MYROBALANS of commerce, yielded by the *Terminalia chebula* and *T. bellerica*, are called also gall-nuts. They are oval fruits of a dingy yellow colour, containing much tannin; hence they are useful to the tanner as well as to the dyer. With alum, this fruit yields a good durable yellow; and with salts of iron, a black colour, little inferior to that produced by oak-galls. The trees grow throughout India, Further India, and in parts of the Archipelago. Their dried fruits, the myrobalans, are largely exported from India, but in varying quantities,—

	Cwt.	Rs.		Cwt.	Rs.
1875-76,	286,350	10,64,013	1881-82,	391,566	14,44,925
1878-79,	541,346	23,45,740	1883-84,	447,719	18,41,069

When ripe, the fruit is pear-shaped, deeply wrinkled, of a brownish-yellow colour, and weighs from 70 to 100 grains. The husk contains the whole of the astringent matter, some mucilage, and a brownish-yellow colouring substance, which is used in India for dyeing yellow. The husk is usually separated by bruising the nut, which it encloses. The tannin of myrobalans differs slightly from that of galls. Gallic acid is present in rather large proportion.

Belleric myrobalan.

Heleyluj, . . .	ARAB.	Kadondong, . .	MALAY.
A-mo-loh kia-kwo, .	CHIN.	Belelah, Beleylah, .	PERS.
Bella, . . .	DUKH.	Behira, Vibitaka, .	SANSK.
Beheyra, Bida, .	HIND.	Booloo, Bulu, .	SINGH.
Malaka, . . .	"	Tauikai, . . .	TAM.

The belleric myrobalan is the fruit of the *Terminalia bellerica*; in its dried state, is little larger than a gall-nut, but not so regular in shape, of a dirty brown colour and astringent taste. It is supposed to be similar in its properties to the chebulic myrobalan, but in a much weaker degree. It is much used in India as the basis of several colours, and also in medicine. It is sometimes used by the natives, in its dried state, in cases requiring slight astringents.

Chebolic myrobalan.

Holiluj kabuli, .	ARAB.	Helilah, . . .	PERS.
A-mo-loh-kia-kwo, .	CHIN.	Haritaka, . . .	SANSK.
Hulldah, . . .	DUKH.	Aralu, . . .	SINGH.
Humbether, GUJ.,	HIND.	Kadukai, . . .	TAM.
Hurda, Har, . .	HIND.		

This is the fruit of the *Terminalia chebula*. In its dried state it is about the size of a large Spanish olive, of an oblong ovate shape, yellow-brown colour, and is marked with edges and

furrows alternately. The tree is common in the Mysore country, Bengal, and in some parts of the Bombay Presidency. This fruit is very astringent, and is extensively used by the natives of India in their arts and manufactures. It is more astringent than the Aleppo galls. This myrobalan, well rubbed in conjunction with galls and catechu, is considered by the Vytians as an excellent external application in the aphthous affections of children and adults.

Six kinds of chebulic myrobalans, all known as Halileh, are used in India,—

Hellah-Zira, the fruit is dried when just formed, and the size of a cumini seed or sira.

H.-i-Jawi, the fruit dried when the size of a jao or barley-corn.

H.-i-Zingi, the fruit dried when of a larger size, and black like a negro.

H.-i-Ohini, larger than H.-i-Zingi, and greenish.

H.-i-Asfar, the fruit near maturity, and yellow (Asfar).

H.-i-Kabuli, the fruit at full maturity.

Mature Kabul myrobalans sell for a rupee a piece in the Bombay market, under the name of Sarwar-i-Hindi.

MYROSPERMUM, a genus of plants belonging to the natural order Amyridaceæ. This species are trees with dotted leaves. *M. Peruiferum*, the Myroxylon Peruiferum, Linn., is a tree of Central America, and supposed to yield the balsam of Peru. The article known in commerce as white balsam, or myrrh seed or quinquino, is made from this tree and from *M. pubescens*. The stem has a thick, smooth, straight trunk with a grey, coarse bark, which is filled with resin. This, by distillation with water, yields a volatile oil; by exposure to the air it hardens, and it is then termed Opobalsamum siccum. The true balsam of Tolu is also sometimes called opobalsamum. It is the *M. Toluiferum*.

MYRRH.

Murr,	ARAB.	Bol, Hirabol, . . .	HIND.
Madu,	BALI, JAV.	Mirra,	IT., PORT., SP.
Mahm-ran-dza, . .	BURM.	Mur,	MALAY, PERS.
Mu-yoh,	CHIN.	Manisan lebah, . .	"
Yang-mu-yoh, . .	"	Valati-polam, . .	TAM.
Mirthe,	DUT., FR.	Palendra-bo-lum, .	"
Myrrhen,	GER.	Villey-bolum, . .	"
Emurna, Murra, .	GR.	Bolindra-bolum, .	TEL.

The myrrh of commerce is believed to be one produced from the *Balsamodendron myrrha*, *Nees ab Ench.*, a tree of Abyssinia, and it is said also of Arabia. Myrrh is mentioned in Genesis xxxvii. 25, and in Exodus xxx. 23, by the name of Mor or Mur. In the Periplus of the Red Sea, Arrian mentions myrrh with olibanum as exported from the coast of Barbaria, that is, the modern Berbera. Bruce learned that it as well as frankincense was produced in the country behind Azab, or in that of the Dankali. The embassy to Abyssinia under Major Harris met with it on the hills, in the comparatively flat country which extends from Abyssinia to the Red Sea, near the straits of Bab-ul-Mandab, or from the Doomi valley to the banks of the Hanwash. Mr. Johnston (Trav. i. p. 249) met with it in nearly the same locality. Both authors describe the myrrh as exuding from wounds made in the bark, and say that it is collected in January and March, but chiefly in July and August, and in small quantities at other times of the year, and exchanged for tobacco with the merchants who proceed to Berbera, etc., whence it is exported to the coast of Arabia.

Myrrh reaches Europe chiefly from Bombay,

having been imported there from the Arabian and Persian Gulfs. It used formerly to be obtained also from Turkey. Ehrenberg and Hemrich found a small tree in Arabia near Gison, on the borders of Arabia Felix, from off which they collected some very fine myrrh. The resin of *Balsamodendron mukul*, *Hooker*, of India, is the bdellium of commerce; *B. pubescens*, *Stocks*, yields the googul resin; *B. Gileadense*, *Kunth*, furnishes the balm of Gilead; and *Boeswellia papyrifera*, *Hock.*, the frankincense and olibanum.

MYRSINACEÆ. *Lindl.* An order of plants comprising species of *Ægiceras*, *Myrsine*, *Badula*, *Ardisia*, *Embelia*, *Chorepetalum*, *Reptonia*, *Samara*, *Mæsa*, *Oncinus*. Most of them inhabit the Himalaya, the mountains of Assam, the Khasya, Circars, Neilgherries, Malayana, and Java.

MYRSINE AFRICANA.

Bui-baring, . . .	ARAB.	Bimak-kabuli, . .	HIND.
Baring,	"	Babrang,	"

A plant of Kaghan, one of the Myrsinaceæ. Its gum is considered by Hindu practitioners to be a warm remedy, used for dysmenorrhœa.—*Cleghorn; Powell*, i. p. 369.

MYRSINE CAPITELLATA. *Wall., Rozb.* li. p. 295. A very common tree on the Neilgherries, particularly about Ootacamund, also throughout the western mountains of the Peninsula, and in Ceylon up to the highest altitudes. Its timber is hard and durable, and used for various purposes. The fruit is eaten.—*Beldome, Fl. Sylv.*

MYRTACEÆ, the myrtle tribe of plants or myrtle blooms, comprises 45 genera, with about 1800 species, principally belonging to S. America, Australia, the South Sea Islands, and the E. Indies. The more important species of the S. and E. of Asia and Australasia plants are species of the genera *backia*, *Barringtonia*, *careya*, *decaspermum*, *eucalyptus*, *eugenia*, *melaleuca*, *myrtus*, *planchonia*, *paidium*, *rhodamnia*, *rhodommyrtus*, *tristania*.

MYRTUS COMMUNIS. L., D.C., Rozb.

Ass, Asbiri, Murad, ARAB.	Barg-i-murad	
Iebar, Ismar, Isferem, . .	(leaves),	PERS.
Mursine,	GR.	Hab'hul, Hab'ul-as
Vilaiti mendi,	HIND.	(fruit),
Sat'r-sowa,	"	"

The myrtle is a native of Asia Minor and S. of Europe; it assumes the shrubby or arborecent form according to the latitude. The plant in all its parts is most agreeably perfumed; 10 lbs. of the leaves afford about a drachm of yellow essential oil of most delightful fragrance. The berries were employed by the Romans as a spice. The Tuscans still use them, and they also prepare from the berries a kind of wine called Myrtidanum. A distilled water prepared from all parts of the plant is employed as a cosmetic, and called Eau d'ange by the French perfumers. The leaves are given in cerebral affections, for flatulency, diarrhoea, internal ulcerations, and rheumatism. The hab'ul-as, though nominally always the fruit of myrtle, appears at times to be the small fruit of some other plants not yet identified with certainty. The myrtle grows well by layers, and even cuttings, but requires careful pruning, and after the rains all the leaves on which insects have deposited larvæ must be removed, or the plant will lose its verdure and beauty by the destructiveness of the young caterpillars. — *Rozb.; Lindley; Ridgell; Jaffrey; Stewart.*

MYRTUS TOMENTOSA. *Aiton. M. canescens, Lour.* A showy plant of China, Cochinchina, Neilgherries, Penang, Singapore. Flowers large, rose-coloured, with crimson filaments. Berries edible.—*Rozb. ii. p. 498; Voigt; Eng. Cyc.*

MYSORE, a city in the south of the Peninsula of India, in lat. $12^{\circ} 18' 24''$ N., and long. $76^{\circ} 41' 48''$ E., 10 miles S. by W. of Seringapatam. This city gives its name to a principality lying between lat. $11^{\circ} 38'$ and $15^{\circ} 2'$ N., and long. $74^{\circ} 42'$ and $78^{\circ} 36'$ E., surrounded on all sides by British territory. The state has an area of 24,723 square miles, and in 1881 had a population of 4,186,188, the census of 1871 having shown 5,055,412. It is an undulating and much broken table-land, elevated from 1800 to 3000 feet above the sea, and the general elevation of the country increases from about 2000 feet above sea-level, along the northern and southern frontiers, to about 3000 feet at the central water-parting which separates the basin of the Krishna from that of the Cauvery. The hill country called the Malnad is confined to the tracts bordering or resting on the Western Ghats. The Nuggur division to the N. of Astagram possesses an elevation generally from 2000 to 2400 feet above the level of the sea. A marked feature of the country is the number of isolated hills called Drugg, on the most inaccessible of which former chiefs built forts, afterwards in many instances strengthened and improved by Hyder and Tipu, and still in good preservation, but now without guns. The most remarkable are Shivaganga, Savandrug (4024 feet), Nundidrug (4810 feet), and Chittuldrug, Conlidrug, and Karbaldrug, the last of which obtained an evil fame as a state prison. The eight highest peaks in Mysore are—Mulaina Giri (6317 feet), Kuduri-mukha (6215 feet), Baba Booden Giri (6214 feet), Kalhatti (6155 feet), Rudra Giri (5692 feet), Pushpa Giri (5626 feet), Merti Gudda (5451 feet), Woddin Gudda (5006 feet). Five of these hills are in the Baba Booden or Chandradrona range, a magnificent cluster in the shape of a horse-shoe, in the centre of which is a rich but pestiferous valley called Jagar.

The *geological structure* of Mysore is mainly hypogene schists, penetrated and broken up by plutonic and trappean rocks in every form of intrusion, and overlaid with occasional patches of laterite and the kankar calcareous deposit. The gneissic rock about Bangalore possesses great economic value, being easily quarried from the surface. Gold is found betwixt Anicul and Pungaur, near Baitmangalam and Ooscotta, and near the Batterine Hills, but not in remunerative quantities.

Rivers.—The Tunga and Bhudra rise in the N.W. of Mysore, and, uniting, form the Tumbudra, which flows northwards and westwards till it joins the Krishna below Kurnool. The banks of the Tumbudra are too high for irrigation purposes. The Cauvery rises in Coorg, and passes through and out of Mysore in a south-easterly direction, after receiving the Hemawati, the Lokani, the Shimsha, and the Arkavati from the north, and the Lachmantirth and the Kabbani from the south. The Cauvery and its tributaries supply numerous irrigation channels and tanks. The Pennar or Pennér, the Palar, and Southern Pennar or Poniar, rise in the eastern part of Mysore, in their short course

through which their waters are detained and converted into chains of tanks. The Sharavatty, on the N.W., runs to the west, and hurls itself, by a sheer descent of 900 feet, down the ghats in the magnificent falls of Gersoppa. None of these rivers are suitable for navigation. There are no natural lakes in Mysore; but there are 37,682 artificial reservoirs, some of which are of considerable magnitude; that of Sulekère is 40 miles in circumference.

The principal forests are found clothing the sides of the western mountains. They abound in teak, black-wood, and other valuable kinds of timber.

The *climate*, though pleasant, is not generally salubrious. That of Bangalore is favourable to Europeans. The thermometer rarely rises above 90 degrees, and the nights all the year round are cool and refreshing. The elevation of the Chittuldrug or N.E. division is somewhat less than that of Bangalore. In climate it is similar, but its hills are feverish. The S.E. division, called Astagram, in its southern and western parts is covered with fine jungle extending to the slopes of the Western Ghats on the one side, and to the base of the Neilgherry Hills on the other. Fever prevails during some seasons of the year, but on the whole the climate is generally a healthy one.

The earliest historical dynasty of Mysore was the Kadamba, whose capital, Banawasi, is mentioned by Ptolemy. The dynasty, after 14 centuries of rule, fell to the Chalukya, and the Chera or Kongu seized the southern districts. The Ballala fell to the Vijayanagar rulers, who again yielded to the Adal Shahi kings of Bijapur. For a time it formed part of the dominions of the Adal Shahi dynasty of Bijapur, and the year after the fall of that dynasty it was taken by Aurangzeb's general, Kasim Khan, and the city of Mysore sold to Chik Deo Raj for 3 lakhs of rupees. But several polygar chiefs continued almost if not wholly independent. The most important of these were the Wodeyar of Mysore in the south, the Nayak of Koladi in the north, the Nayak of Balam (Manjarabad) in the west, and the Beder chiefs of Chittuldrug and Tarikere. In 1610, the Raj Wodeyar of Mysore seized the fortress of Seringapatam, and thus laid the foundation of the present Mysore state. Wodeyar is a plural or honorific form of Odeya, a Canarese word meaning lord or master. Hyder Ali, in the middle of the 18th century, brought Mysore proper, Coorg, with the Carnatic and much of the Dekhan, under subjection, and he was at the height of his successes when Chum Raj, the titular ruler, died. Till then Hyder Ali had professed to rule Mysore in behalf of the Hindu raja, and, every Dasara, Chum Raj appeared before the people in the state balcony, seated on an ivory throne, Hyder Ali being present as his commander-in-chief and minister, and he selected a successor, also named Chum Raj, from amongst the collateral relations, but Hyder continued to rule in reality until his death on the 7th December 1782. The Carnatic rulers, aided latterly by the British, the Mahrattas, and the Hyderabad state, were frequently at war with Hyder Ali and his son Tipu Sultan. When Hyder died in 1782, peace was finally concluded with Tipu in 1784, on the basis of a mutual restitution of all conquests. But in seven years war was again declared, and Lord Cornwallis in 1791 took command, and on

the 21st March captured Bangalore. On the 13th May, Tipu opposed him at Arikera, and was completely routed, but Lord Cornwallis was obliged to retreat. In August, however, Lord Cornwallis captured several difficult forts, and on the 5th February 1792 he encamped before Seringapatam, and drove the enemy into the fort, on which Tipu came to terms, delivering up half his kingdom, and three krur of rupees, with two of his sons as hostages.

The taking of Bangalore from Tipu Sultan, on the 21st March 1791, gave the British a permanent position in Mysore; but eight years later, on the 4th May 1799, when Seringapatam was stormed, the whole country came under British supremacy, by the replacement on the throne of the descendant of former Hindu rulers. The genealogy of this family is traced from the Yadu line of Chandravana, but the first in authentic history was Timma Raja Wodeyar, son of Betta, A.D. 1530, and the dynasty ruled until A.D. 1767, when Hyder Ali put aside the raja Chama Raja Wodeyar. Krishna Raja Wodeyar was restored by the British in 1799, on the fall of Tipu at the storm of Seringapatam, and, after he came of age, ruled the country till 1831, but during Lord W. Bentinck's administration, owing to frequent insurrections, commissioners were appointed for its management. The raja died childless in the beginning of 1868, but had adopted as his successor the third child of Chikka Krishna Arasu of the Bettada Kote branch of the royal house, the new sovereign being installed under the title of Chama Rajendra Wodeyar. The date of the rendition was 25th March 1881. The British Government conferred the country on the maharaja and his heirs for ever, prohibited building or repairing of forts, increase of military beyond a fixed maximum, the introduction of separate coinage, and the employment of Europeans without the previous sanction of the Indian Government. Provision was made for establishing British cantonments in Mysore wherever and whenever required, the constructing and working of railways and telegraphs, respecting and continuing the existing laws, the revenue settlement and the existing system of administration, and prohibiting or limiting the manufacture of salt or opium. The maharaja renounced his jurisdiction over the Bangalore cantonment, and surrendered his jurisdiction over European British subjects. The present annual tribute, amounting to 24 lakhs, or about $\frac{1}{4}$ th of the gross revenue, is to be increased by 10 lakhs; but this clause was not to come into operation without the mature consideration of the maharaja. An infant princess, born a few days before the installation, was named Jaya Lukshmi, Jaya, in compliment to the Queen-Empress Victoria.

Rain.—The soil is tolerably fertile, but the rainfall is scant and uncertain; it ranges from 29·22 to 47·65 in the different parts of the country. This is often a cause of dearth, at times of famine. There was scarcity in 1824, 1831, 1833, and 1865; there was also scant rain in 1851 and 1860. The drought which affected all Southern India in 1876-78, fell with especial severity upon Mysore. From October 1875 to October 1877, four successive monsoons failed to bring their full supply of rain. The harvest of 1875 was generally below the average, and remissions of revenue were found necessary; but it was not till towards the close of

1876 that famine was recognised to be abroad in the land. The crops of that year, in some parts, had yielded only $\frac{1}{4}$ th; and even in the less stricken districts of Hasan and Shimoga, under the Western Ghats, only half of a fair harvest was gathered. On the other hand, grain was poured into Bangalore by the Madras railway; but the means for bringing the food to the hungry mouths were inadequate. During the whole twelve months of 1877, famine was at work. In October of that year, the S.W. monsoon broke with a fair rainfall, and cultivation at last became possible. It is calculated that the loss of population in 1876-78 must have been in excess of the number as estimated by the Famine Commissioners, namely, 1,172,548; for the total population in 1871 was 5,055,412, that of 1881 was 4,186,188, or 869,224 less than the total in 1871. The area under cultivation in 1880-81 was 4,280,674 acres, against 3,996,206 in the previous year.

From 1831 the British authorities had conducted the administration to 1880-81, the last year of the Government administration previous to its being handed over to the present maharaja. Large reductions had been made since 1878-79. The civil charges had been reduced by £1,423,000; the expenditure on the local fund by £31,000; public works by £775,000. The condition of the state funds at the period of rendition was as follows:—Ordinary expenditure, £8,585,000; civil expenditure, £754,000; local military forces, £1,070,000; in all, £10,409,000. Nearly all the European civil and military officers had been displaced by natives of India on smaller salaries. The great bulk of the population follow some form of Hinduism, but the aborigines are numerous; there are 200,484 Muhammadans, and a considerable number of Christians. The village officers are the Gowda, the Talawar or watchman, the Madiga, the Baraka or Kalawadi, whose office is that of the Toti of the Tamil villages; the Shambogue or accountant, Badega or carpenter.

The majority of Mysore Brahmans belong to one or other of the Pancha Dravida or five southern tribes, viz.—(1) Karnataka; (2) Telinga or Andhra; (3) Dravida or Tamil; (4) Malhatta; and (5) Gujerati. These names indicate the countries from which the various sects originally came; and they still use their native languages as their house-tongue. The Brahmans are of three sects, the Smartha, Madhava, and Sri Vaishnava. The first of these hold the Adwaita (non-dual) philosophy; the Madhava are of the dwaita (dual) school; and the Sri Vaishnava entertain the Vasisht-adwaita belief.

The most numerous cultivators are the Waka-liga; they numbered 695,215 at the census of 1881. They are divided into more than 50 sub-classes; they form the backbone of the population, and for skill and industry are unsurpassed by any agriculturists of India. Other cultivators are the Reddi (54,593), and some of the Gaudaru. The more prominent castes are as under:—

Aradhyanu,	5,912	Chitrager,	679	Gujerati,	82
Arasu,	5,265	Christians,	30,249	Halo Paika,	63,246
Ayagalu,	33,932	Coorgs,	33	Holaya,	447,421
Banajiga,	93,037	Dasari,	693	Iralur,	1,229
Beda,	171,269	Doomar,	2,787	Jain,	16,760
Besta,	61,826	Gauliga,	6,681	Jetti,	1,446
Bhatraj,	1,320	Gaudaru,	259,110	Kama,	7,663
Brahman,	162,652	Gollar,	102,633	Konati,	25,985
Byrugi,	277	Gosain,	446	Kahatriya,	13,251

Kunchiga, 82,474	Marwari, . 235	Rangare, . 3,493
Kurubar, 291,965	Mudali and Reddi, . 54,593	
Ladar, . 1,415	Pilli, . 10,002	Satigeya, . 430
Lingnet, 470,269	Muhammadas, . 16,873	Satani, . 16,873
Lumbani, 31,442	200,484	Soliga, . 1,596
Madiga, 174,824	Multani, . 6	Tiglaru, 44,283
Mahrati, 41,239	Nagartaru, 7,943	Upparu, 22,144
Mala, . 66,366	Naidu, . 893	Wakaliga, 859,363
Maleali, . . 21	Panchala, 91,423	

The right-hand castes of Mysore are—

The Banajiga, trader.	Kuruba or shepherd.
Wakaliga, farmer.	Kumbara, potter.
Ganiga, oilman, who yokes only one bullock to the mill.	Agasa, washerman.
Rangari, dyer.	Besta, fisher, palki-bearer.
Lada, Mahratta trader.	Padmasale, weaver.
Gujerati, merchant.	Nainda, barber.
Kamati, labourer.	Uppara, saltmaker.
Jaina.	Chitriga, painter.
Buddhist.	Golla, cowherd.
	Holaya.

The tradition is that the goddess Kali at Con-jeveram placed certain castes on her right hand, and others on her left, and ever since these have contended for precedence.

The left-hand castes are Panchala, five artisans; Bheri, traders of the Nagarat caste; Devanga, weavers; Hegganiga, oilmen using two bullocks at the mill; Golla or Dhanapala; Beda, hunters; Wakalu, farmer; Palli or Tiglar; Madiga, leather workers.

Betta or Hill Kurubar live in the woods in small communities called hadis, in sheds made of branches of trees. They are credited with possessing magical powers. They are dark in colour, and short in stature. The women are rarely seen, and do not work with the men. The Jenu (Honey) Kurubar subsist almost entirely on forest products, and occupy themselves in collecting honey in the jungle. Their features are coarse and irregular, and their hair hanging in a dishevelled mass. The other Kurubar named are the Kada or wild; the Halu or milk; the Handi or swineherd; and Kamli Kuruba or weaver. In the Munnad, the aboriginal Holayaru (from the Canarese word Hola, a field) are rural serfs, attached to the farms of the feudal headmen. The Munnalu (from Munna, land, and Alu, a slave) used to be sold with the land, and were specified in the leases.

Honnalu (from Hona, gold) were transferable with or without the soil. The price of a man and woman was from £4 to £5; and it was calculated that these, with a pair of bullocks, could cultivate 10 acres of land. Their owner maintained them, giving them 2 lbs. of rice daily, with double this amount on feast-days, and an annual supply of clothes and blankets, to which were added presents on marriage. Children belonged to the lord of the soil. The Holayaru live in huts in the neighbourhood of the farms, and generally possess small gardens for kitchen produce. They are a stout and healthy race, with broad features and flat faces, and generally carry about with them a wood knife.

The Koracha (16,591) have mat huts, and are notorious thieves. They associate with the Lumbani, whom they join in dacoity and burglary. They know Tamil and Telugu, but have also their own language. Their women hang round their necks, and falling over their bosoms, numerous strings of small white and red beads.

The Soliga (1596 in number) live in the dense forests of the Bilikalrangam Hills, where there are

besides themselves only wild animals. They are in small communities of six or seven huts, and cultivate with the hoe small patches of ground with plantain, vegetables, and a little ragi, which with forest produce and wild animals form their food. They avoid civilised men.

The Holeya (225,318) are regarded by the Hindus as unclean. They are in the Canarese-speaking country in the same position as the Dher of the Dekhan, the Mhar of the Mahratta country, the Mala of Telingana, and the Parayan of the Tamil provinces. A Holeya having to deliver anything to a Brahman, places it on the ground, and retires to a distance. When meeting in a street or road, the Holeya moves as far as possible away from the path of his superior.

The Madaga are leather dressers like the Tamil Chakili, the Mahratta Mhar, and Northern Chamar.

Religion.—681,745 of the aboriginal population have not yet accepted Hinduism. They comprise the Doomar, Holeya, Irular, Jogi, Koracha, Kurubar, Lumbani, Madaga, Mala, and Soliga. Besides these are the non-Hindu Muhammadans, 200,484; Christians, 30,249; Jains, 10,760. Buddhist emissaries appear to have visited the country in the 3d century B.C.; while the Jains established their supremacy here, and maintained it during many successive ages, leaving behind them several richly-wrought temples, and other memorials.

The *language* spoken throughout Mysore, except in Kolar and the eastern side of Chittuldrug, is Canarese, which is the vernacular of 9 millions of people (8,335,859) in different parts of India. There are three dialects of Canarese—(1) Purvada Hale Kannada, or the archaic Canarese of inscriptions earlier than the end of the 7th century; (2) Hale Kannada, or old Canarese, up to the end of the 14th century, in which were written the older sacred books of the Jains and the majority of the Mysore stone inscriptions; and (3) Hosa Kannada, the existing language. The Kannada speakers, 8,095,647; Telugu, 637,230; Tamil, 130,569; Tulu, 8941; Maleali, 332; and Kodaga, 21.

MYTHOLOGY. Aryan races have a complicated mythology. The Semitic races had El, strong; Bel or Baal, lord; Adonis, lord; Shet, master; Moloch, king; Ram and Rimmon, the exalted; and other similar terms for their deities. Vedic Aryans, on the contrary, had Zeus, the sky; Phoebus, Apollo, the sun; Neptune, the sea; Mars, war; Venus, beauty; etc.

Aryans of India are worshipping deified heroes, non-Aryans have numerous fetish, and both races have many elemental deities. The Chinese, too, have many of the latter, and have also deified many of their illustrious men and women, and all Hindus and Chinese are essentially spirit-worshippers. The Muhammadans, the Ali Ilahi sect, credit continuous incarnations from Ali, whom they believe to be deity. Hindus of the Saiva sect have Mount Kailasa as the paradise of Siva, and those of the Vaishnava sect have Vainkunta, on Mount Meru, for their supreme god Vishnu. Swarga is the heaven of Indra, and the Vishnu Purana (ii. p. 214) enumerates twenty-one hells.

Hindu mythology accords precisely with the Greek in sending the souls of the dead to receive judgment, and, according to the sentence of their judge, they are thence conveyed to Naraka

or Swarga, each according to their evil or good deeds. The Jaina sect also have their temples on Abu, Govardhan, and other hills, and Hindus and Jains make pilgrimages there.

But in modern Hindu mythology, the guardians of the world are eight deities, who now rank next below the Hindu triad. They are—Indra, Agni, or fire; Surya, the sun; Chandra, the moon; Pavana, the wind; Yama, the god of justice and lord of the infernal regions; Varuna, the god of water; and Kuvera, the god of wealth. The eight regents of the winds of the Hindus correspond with those on the temple of winds at Athens.

Amongst the Hindus, mythology is all-pervading. Their history, legends, science, literature, arts, customs, and conversation are replete with mythological allusions. A respectable knowledge of their pantheon is consequently an almost indispensable preparatory acquirement to the study and comprehension of nearly everything which relates to them. The subject of the original home of the Aryans has been engaging the attention of the most eminent philologists ever since Bopp published his Comparative Grammar. Latham, Benfey, Lazar Geiger, Fr. Müller, Cuno, Peschel, Pöschke, Dr. Schrader, and Karl Penka all have discussed the hypothesis that their early home was in Northern Europe, and the last-named writer points to Scandinavia as their original dwelling-place. The mythology of India has done much to explain that of ancient Greece and Scandinavia. This will be seen by the following list of the principal of the Hindu deities of the present day, and their principal analogues. It is taken from the *Pantheum Myticum* of Pomeg, which formerly belonged to Sir William Jones, and is referred to by him in his Dissertation on the Gods of Greece, Italy, and India:—

Agni = Vulcan, fire, ignis.
 Ahi, the Greek Echidna.
 Anna Purua = Anna Perenna.
 Aruna = Aurora.
 Aswikulapa = Æsculapius = Genii.
 Aswini-Kumara = Castor and Pollux.
 Ata-Devi or Atava-Devi = Diana.
 Bala Rama = Bacchus as the inventor of the use of wine.
 Bhawani = Venus.
 Brahma = Saturnus.
 Chandra = Lunus, the moon.
 Durga is the analogue of Juno.
 Dyaus = Zeus, Dyaushpitar, Diespiter.
 Dyava-Prithivi, a dual god = Ouranos and Gaia.
 Ganesa = a male Minerva, Janus.
 Gopyah-Vidyah = Musæ.
 Hanuman, the monkey god, son of Pavana = Pan.
 Harit = the Charites.
 Heraoula, an Indian deity = Hercules.
 Indra = Jupiter, god of the firmament.
 Kali or Durga = Proserpine.
 Kama = Cupid, Eros, god of love.
 Kartikeya or Skanda = Mars, the god of war.
 Krishna = Apollo.
 Kuvera = Plutus, god of riches.
 Lakshmi or Sri = Ceres.
 Narada, god of music = Mercury.
 Pavana = Pan.
 Prithivi = Cybele, goddess of earth.
 Rama, god of wine = Bacchus, the Grecian Dionysius.
 Remb'ha = Venus.
 Sabala = Kerberos.
 Sarameya = Ermenas.
 Saraswati = Minerva.
 Silva = Indra, Jupiter.
 Skanda = Mars.

Sri = Ceres.
 Surya or Arka = Sol, the sun.
 Swaha, wife of Agni = Vesta.
 Uahasa = Aurora.
 Varuna = Neptune, god of the water, the Greek Ouranos.
 Viraja or Vaitarini = the river Styx.
 Viswakarma = Vulcan, architect of the gods.
 Yama or Dharmaraja = Minos, the Grecian Pluto.

Many of the Hindu deities, however, belong to a bygone age, and ceased to be worshipped more than 2000 years ago. Perhaps Agni, Chandra, Indra, Saraswati, Surya, and Yama, among the old myths, are all that are now renowned; the other Vedic deities have yielded to Bhawani, Durga, Ganesa, Hanuman, Kali, Krishna, Lakshmi, Prithivi, Rama, Siva, and Vishnu, with many gods of local fame.

The deities of the ancient Greeks were exceedingly numerous and dissimilar in their character. In Greece and Asia Minor, each of the deities was the paternal god of some city or race, having not only separate rites, but a form of worship widely different. Each deity had his favourite abode and local attachment: to some valley, or grove, or town, the power and presence of the divinity especially belonged; and hence in Boeotian Thrace we trace the orgies of Bacchus; in Northern Thessaly, the worship of Apollo; on the Corinthian shores, the rites of Neptune; in Argos, the temples of Juno; and in Ephesus, the worship of Diana. Though acknowledged to be divine out of their own peculiar domains, yet their worshippers were rather averse to proselytism, fearing lest, by an extended communication, the local influence of the deity should be weakened. The sacred object of Ephesian worship was carefully preserved, from the period of its first formation, through the ages which intervened, till the demolition of pagan temples, which followed upon the rise of Christianity. The image consisted of a large block of wood of beech or elm, but, according to some, of ebony or vine, shaped into a likeness of the goddess, and evidencing its remote antiquity by the rudeness of its workmanship. The first statues were unshaped blocks and stones; and hence the word column was generally used by the Greeks to denote a statue. The Greeks identified Baal with Zeus, as they did Astarte with Venus. The heaven-fallen idol of Ephesus was not a representation of the elegant huntress of classic fable, but an Egyptian hieroglyphic, a personification of nature. In this character she was pictured as a woman having a number of breasts, to denote, according to Jerome, that, as nature, she was the nurse, the supporter and life of all living creatures.

Similarly, at the present day, amongst the Hindus and other idol-worshippers of British India, shapeless stones and pieces of wood are worshipped in every village. The three famed idols at Jaganath are three shapeless masses of wood, and similar pieces of wood are used as deities on the left bank of the Bhima river. Also every village has its own local deity, and the idol worshipped at Tripati is quite dissimilar from that at Srirangam.

The two gods *Indra* and *Agni*, rain and fire, were the chief deities worshipped by the Vedic Aryans. The sovereign of the gods, *Indra*, the most powerful of the Vedic deities, was the god of the firmament, the hurler of the thunderbolt, who

smote the rain-cloud, and brought down waters, who delighted in the soma juice, in eating, drinking, and war, strong and drunk with wine.

Indra, according to Bunsen (iii. 587, iv. 459) is the prototype of Zeus, and was a personification of ether; soma was offered to him in sacrifice as the regent of the east, identical with Devandra, the king of the Devas. The Erythrina fulgens, the Pari-jata, or fairy locks, is supposed to bloom in Indra's gardens, and an episode in the Puranas relates the quarrelling of Rukmini and Satyabhama, the two wives of Krishna, as to the exclusive possession of this flower which Krishna had stolen from the garden. The Gandharva, in Hindu mythology, a shade, a spirit, a ghost, a celestial musician, are demigods or angels who inhabit Indra's heaven, and form the orchestra at the banquets of the gods. They are described as witnesses of the actions of men, and are 60 millions in number.

Agni, the personification of fire, was worshipped as the destroyer of forests, as useful in the sacrifice and in the household.

'When generated from the rubbing of sticks, the radiant Agni bursts forth from the wood like a fleet courser.

'When excited by the wind, he rushes amongst the trees like a bull, and consumes the forest as a raja destroys his enemies.

'Such as thou art, Agni, men preserve thee constantly kindled in their dwellings, and offer upon thee abundant food.' (Rig Veda, i. 73.)

Varuna was the Vedic god of the waters, and god of the ocean, but the name was sometimes applied to the sun and sometimes used as a personification of day. As with other gods, when addressed, he was regarded as supreme, and capable of forgiving sin,—

'Let me not yet, O Varuna, enter the house of clay; have mercy, Almighty, have mercy!

'If I go along trembling, like a cloud driven by the wind; have mercy, Almighty, have mercy!

'Thirst came upon the worshipper, though he stood in the midst of waters; have mercy, Almighty, have mercy.'

Surya, or the sun, called also Savitra, Mitra, Aryaman, and other names, was a Vedic god, who continues to be worshipped down to the present day, by Brahmans and Zoroastrians. The Solar race of Kshatriya, who appear in the Ramayana, derive their origin from the sun; but, in the higher spirit, the sun is regarded as divine, as pervading all things, as the soul of the world and supporter of the universe. In a verse of the Rig Veda (iii. 62, v. 10) this idea is supposed to be indicated. It is O'm! Bhūrbhuvāṣṣuvāhā, O'm! Tātaṣa vīthru vareṇnyāṁ, B'hargo devāsyā dhīmahi dhiyo yonāha prachō dāyāth: O'm! earth, air, heaven, O'm! Let us meditate on the supreme splendour of the divine Sun; may he illuminate our minds.' And, at the present day, the enlightened Brahmans regard this verse as an invocation to the several deities who are implored by the worshipper to aid his intellect in the apprehension and adoration of God.

In connection with the sun are the 12 Aditya, sons of Aditi, the universe. In the latter Vedic age, they were identified with the 12 signs of the zodiac, or the sun in its 12 successive signs.

Soma, also Chandra, the moon, is chiefly cele-

brated in the Vedas in connection with the soma plant; but in the Mahabharata, Soma is the mythical progenitor of the great Lunar race of Bharata.

The Asvini, apparently a personification of light and moisture as sons of the sun, also as the sun's rays, and noticed as the physicians of the gods. They are described as young and handsome, and riding on horses.

Vayu, or the air, and the Maruts as winds, are personified and invoked. The Maruts are depicted as roaring amongst the forests, and compared to youthful warriors bearing lances on their shoulders, delighting in the soma juice, like Indra, and, like him, the bestowers of benefits on their worshippers.

Ushas, or the dawn, the early morning, the first pale flush of light. Ushas is compared to a mother awakening her children; to a lovely maiden awakening a sleeping world; to a young married maiden, 'like a youthful bride before her husband, thou uncoverest thy bosom with a smile.' As a goddess, she is styled (Rig Veda, i. 23, v. 2) the mighty, the giver of light; 'from on high she beholds all things; ever youthful, ever reviving, she comes first to the invocation.'

Perhaps the most wonderful circumstance of all connected with the ancient Hindu literature, is the completeness with which its effects have passed away from the people of the land. The Veda, in modern Hinduism, is a mere name,—a name of high authority, and highly revered,—but its language is unintelligible, and its gods and rites are things of the past. The modern system is quite at variance with the Vedic writings out of which it grew, and the descendant bears but few marks of resemblance to its remote ancestor. The key to this modern Hinduism is to be found in the literature of the Puranas; but before this literature began to assume a definite shape, the point had been already reached which marked the complete divergence of Hindu from European thought. We have to go back to the genuine Vedic ages for conceptions of visible and invisible things analogous to those which determined the course of Greek thought, and, through this, of the thought of the whole western world. Of history, in the true sense, it possesses next to nothing. Of the old poets, philosophers, grammarians, and astronomers, many were beyond doubt men of great genius, and some were possessed of powers as remarkable as any which the world has seen in her most gifted children; but the incidents of their lives can be related generally in a few lines, and not much space is needed to give a tolerably adequate outline of their philosophical systems.—*Williams' Story of Nala; Cole. Myth. Hind.; Calcutta Review; Ins. of Menu; Wilson's Hindu Theatre; Rig Veda, v. 10; Bunsen; Sir W. Jones; Moor's Pantheon; Hymn to Indra; Jacob Grimm, Mythology; Douson's Classical Dictionary; Lubbock's Origin of Civil; Milner's Seven Churches of Asia.*

MYTILUS, the mussel genus of molluscs, of the family Mytilidæ. The mussel is abundant on most rocky coasts, where the species are to be found moored by their coarse filamentous byssus, generally to such rocks or other submarine bodies as are exposed at some periods of the tide where tides exist, and covered by the sea at high water. The species are numerous, and most of them are used as food; but illness and even death have issued from a meal made on some of them. The

bysus, or beard, as it is popularly called, should be carefully cleared away, and they should be particularly avoided when cholera is about, or even when diarrhoea is prevalent. The common edible mussel, *M. edulis*, is found in extensive beds below low-water mark, and also at a greater depth. Rocks and stones between high-water marks are also covered with them. When freed from the epidermis and polished, the under-surface of the external parts of the shell is exposed, and is of a deep blue. See *Mollusca*.

MYXA, or Egyptian plum of Pliny, is supposed to be the *Cordia latifolia*.

N

N, the fourteenth letter of the English alphabet, is a nasal consonant, and its sound is obtained by placing the tongue against the palate, with a vocalized expulsion of the breath. Its principal sound is that heard in bun, done, moon; but when followed by g or k, it takes other sounds, as in singer, finger, brink. When final after m, it is silent, condemn. In the Nagari alphabet there are four symbols for n, the sounds of all of which occur in the English, although not represented in it by separate letters, chiefly caused by the preceding or following letter. There is an n in the Tamil tongue with a dental nasal sound; and in Hindustani, Gujarati, and Mahrati, there is a nasal, usually a final, although sometimes a medial, which is scarcely sounded, although it gives a nasal sound to the preceding vowel. N amongst the Baluch becomes m, so that Nila, blue, is made into Miloh.

NA, also Sna. TIB. A wild sheep of Ladakh. Vigne calls it of the size of an ordinary sheep, of a dull brownish-grey colour, with curved, smooth, and four-sided horns. It is called by De Koros a large sheep-like deer. Major Cunningham supposes it the same as the Nahur of Nepal, the *Ovis nahur*.

NAAF, the Anouk-ngay of the Burmese, lat. 20° 45' N., long. 92° 30' E., an arm of the Bay of Bengal, forming a portion of the western boundary of Akyab district. It is about 31 miles long, and 3 miles broad at its mouth. The island of Shahpuri protects its entrance to some extent from the S.W. monsoon. In September 1823, a small British detachment, then occupying the island, was attacked by the Arakanese troops under the raja of Ramri, which led to the first war with Burma.—*Imp. Gaz.*

NABHA, one of the Cis-Sutlej States under the political control of the Government of the Panjab, lying between lat. 30° 17' and 30° 40' N., and between long. 75° 50' and 76° 20' E. Area, 863 square miles; estimated population in 1876, 226,155. The ruling family is descended from Tiloka, the eldest son of Phul, a Sidhu Jat, who founded a village in the Nabha territory. The raja of Jhind is descended from the same branch, and the raja of Patiala is descended from Rama, second son of Phul. These three families are accordingly known as the Phulkian houses. By a sunnud of May 5, 1860, it was provided that, in a case of failure of male heirs to any one of the three Phulkian houses, a successor should be chosen from among the descendants of Phul,

by the two other chiefs and the representative of the British Government. The family behaved ill in the Sikh war of 1845-46, but did well in the revolt of 1857, and were rewarded by a grant of land out of the Jhujjar territory. The troops formed part of the Native Contingents which held the Khaibar and Kuram country during the operations in Afghanistan in 1879.

NABHAGADISHTA, a son of Menu who, whilst a student, was deprived of his inheritance. He subsequently became wealthy by teaching spiritual knowledge.—*Dousson*.

NABHAJI, a disciple of Ramanand, author of the *Bhaktamala*.—*As. Res.* p. 8.

NABI. ARAB., PERS. A prophet, but particularly applied to Mahomed.

NABLUS, a corruption of Neapolis or New Town, the Shechem of the Old Testament, and the Sychar of the New, one of the oldest cities of Palestine, and at one time the capital of Samaria, the imperial city of the ten tribes. It is situated in a narrow valley between Mount Ebal and Mount Gerizim. The present village, called Sabouate, is small, and its inhabitants poor.

NABONASSAR or Nabu-Natsir, a king of Babylon, under whose reign astronomical studies were much advanced in Chaldea. He is known to the Arabs and in Muhammadan literature as Bakht-un-Nasr. The first day of the era which he established was Wednesday the 26th February 747 B.C. Its year was of 365 days, without any intercalary day on the fourth year. Oriental historians, and particularly the Persians, also style him Raham, also Gudarz.—*D'Herbelot*, iii. p. 1; *Mignan's Tr.* p. 254; *G. Smith*.

NABOPOLASSAR or Nabu-pal-Uzur, the father of Nebuchadnezzar, the Nabu-kudur-Uzur, of the Babylonians. Nabopolassar became the Assyrian satrap of Babylon B.C. 626. He made himself independent, and in alliance with the Medes checked the career of empire of the Assyrians, and raised Babylon into the seat of empire of Western Asia. The Medes had revolted, and Sardannapalus, king of Assyria, commanded Nabopolassar to march against them, but instead of doing so, he made an alliance with Cyaxares, and marched with him against Nineveh, which was destroyed B.C. 606. Sardannapalus burned himself in his palace, and ended the Assyrian empire; and from that time Babylon became independent.—*G. Smith*; *Bunsen*.

NACHIKETAS, in Hindu mythology, son of Aruni or Vaja-sravasa, who, having angered his father, departed to the abodes of death, and, after staying there three nights, Yama granted him permission to see his father again, and instructed him in a true knowledge of the soul.—*Dousson*.

NACHRAVALI, TAM., Asees, HIND., is a form of Hindu benediction, only bestowed by women and priests. It is performed by clasping both hands over the person's head, and waving over him a piece of silver or other valuable, which is bestowed in charity. The Tamil people similarly wave a fowl or sheep's head around a sick man. This is a very ancient ceremony. Colonel Tod frequently had a large salver filled with silver coin waved over his head, which was handed for distribution amongst his attendants. It is most appropriate from the ladies, from whom also he had this performed by their proxies, the family priest or female attendants. It is also a Muhain-

madan rite.—*Tod's Rajasthan*, i. p. 618. See Balain Lena; Sacrifice.

NACRE. FR. Mother-of-pearl or mother-o'-pearl. The nacre in shell is more especially observed in their interior, and is distinguished by the iridescence produced by the action of light. It consists of layers or folds of membranous shell substance. This lustre has been successfully imitated on engraved steel buttons.

NAD, also written Naad or Nadu, KARN., MALEAL., TEL., and Nat, MALEAL., TAM., a province, a district of a country, as Mulnad, Wynad. The plateau of the Neilgherry Hills is arranged into three naad, the Peringa-naad, Malka-naad, and Thodawar-naad. Mulnad means a hilly country.

NADI or Nari. BENG. A caste who make ornaments of lac for Muhammadan women.

NADIR. ARAB. Wonderful, an epithet to describe the Almighty. Nadir Kuli, the slave of the wonderful (i.e. God).

NADIR SHAH, a native of Khorasan, was one of the greatest warriors whom Persia has ever produced. His name was Nadir Kuli, but he has also been known as Tahmasp Kuli. According to Mirza Mahdi, his historiographer, Nadir was descended from the Karakli branch of the tribe of Afshar, or Aushar, according to the pronunciation of the Turkomans, meaning one who holds together. The Afshar was one of the seven Turkish tribes that had attached themselves to the family of the Saffavean dynasty, moved from Turkestan into Iran during the dominion of the Mongols, and settled in Azerbaijan. In the time of Shah Ismail Safi, they emigrated to Khorasan, where they dwelt in Yap Kopken, which belonged to Abiverd, and is situated twenty farsakhs to the north-west of Meshed. Here, on the border of the steppe, Nadir was born, A.D. 1687.

At seventeen he was taken prisoner by the Uzbek, but four years afterwards he escaped and returned to his native country, and subsequently accepted service with the king of Khorasan. He successfully commanded an army against the Tartars, but, being ill rewarded, he left and became predatory.

After the abdication of Shah Husain in favour of Mahmud, chief of the Ghilji, A.D. 1722, when Isfahan yielded to that Ghilji chief, Tahmasp, son of Shah Husain, escaped. He had fled from Isfahan, and had remained under the protection of the Kajar tribe on the shore of the Caspian, where he was joined by Nadir Kuli.

He captured Meshed, and recovered Khorasan from the Abdali and Muhammad Khan of Seistan, and in a succession of battles broke down and dispersed the Ghilji, most of whom were killed or perished in the desert on their attempting to return home. Ashraf, son of Mahmud, was murdered by a Baluch chief (January 1729) between Kirman and Kandahar. Nadir next marched against the Turks, from whom he recovered Tabreez, opposed a rising of the Abdali, took Herat, and gained over the Abdali to his views. Shortly after this he adopted the Sunni religion, and the Abdali became the most devoted of his followers. Shah Tahmasp had begun to exercise the prerogatives of royalty, but Nadir replaced him by his infant son. This was virtually the commencement of Nadir's own reign, but it was not till he gained many victories over the

Turks, recovered the whole of the territories which that nation and the Russians had seized, and made peace with both powers, that he formally assumed the title of king of Persia. He repaired with his army to the plain of Moghan, to which place he summoned the civil and military functionaries. They assembled to the number of 100,000 persons, and unanimously offered him the crown (A.D. 1736), which he accepted on the condition that the Sunni religion should be established throughout Persia. He was crowned at 20 minutes past 8 A.M., 26th February 1736 A.D., or Shawal 1148 A.H. His next military effort was to seize Kandahar from the Ghilji, and restore it to the Persian monarchy. He set out with an army of 80,000 men, but, though aided by the Abdali, it was not till after a close investment for nearly a twelvemonth that Nadir ventured an assault, and even then he was more than once repulsed before Kandahar fell into his hands (March 1738). While carrying on the siege, he settled the greater part of the surrounding country, and at the same time his son Razza Kuli Mirza, who had marched from Meshed against the Uzbaks, not only conquered the province of Balkh, but gained a victory on the Oxus (Amu Darya) over the king of Bokhara in person (Malcolm's Hist. of Persia, ii. p. 68; Hanway, ii. p. 335; Sir W. Jones, Nadir Namah). His treatment of the Ghilji was moderate; he regarded them like his other subjects, and admitted many of them into his army, but he removed a portion of them from their lands around Kandahar, which he made over to the Abdali, and particularly to that part of them which had been settled about Nishapur in the west of Khorasan.

After a little he advanced and occupied Ghazni and Kabul (May A.D. 1738, A.H. Safr 1151). The court of Delhi being at this time occupied by the Mahrattas, his messages to the Indian Government were neglected, and one of his messengers was cut off by the Afghans (October A.D. 1738, A.H. Shaban 1151). He therefore advanced through the mountains (November A.D. 1738, A.H. Ramzan 1151), defeated a small force under one of their governors, threw a bridge across the Indus, advanced through the Panjab, and met with no real hindrance till he approached the Jumna, within 100 miles of Delhi, when he found himself in the neighbourhood of the Indian army. The armies closed at Karnal, and the battle (12th February 1739, 15th Zikaida 1151) ended in the complete rout of the Indian army. Khan-i-Daoran, the commander-in-chief, was killed. Sadat Khan, viceroy of Oudh, was taken prisoner, and Muhammad Shah, the emperor, sent Asaf Jah to tender his submission, and himself repaired with a few attendants to the Persian camp. The two kings marched towards Delhi, which they reached in the beginning of March 1739, and took up their residence in the palace. Nadir stationed his troops about the town, to preserve order and protect the people. But, on the second day of the occupation, a report spread that Nadir was dead, on which the Indians fell on all the Persians within their reach, and from their isolated positions about 700 were sacrificed. Nadir exerted himself personally to suppress the insurrection, but he was soon assailed with stones, arrows, and firearms from the houses, and one of his chiefs was killed at his side by a shot aimed at

himself. On this he ordered a general massacre of the Indians (Fraser's Nadir Namah, p. 183). The slaughter raged from sunrise until the day was far advanced. It was attended with all the horrors that could be inspired by rapine, lust, and thirst of vengeance. The city was set on fire in several places, and was soon involved in one scene of destruction, blood, and terror. At length Nadir ordered it to be stopped, and his order was at once obeyed. 30,000 are stated by the author of the Nadir Namah to have been slain, but the numbers killed have been given at 120,000 to 150,000. Nadir afterwards seized the imperial treasures, also the celebrated peacock throne; and every inhabitant was forced to disclose the amount of his property, and pay accordingly. Torture and murder were employed to enforce payment. Nadir concluded a treaty with Muhammad Shah, by which all the country west of the Indus was ceded to Persia, his son was married to a daughter of the house of Timur, and he rescued Muhammad on the throne, invested him with the ornaments and crown with his own hands, and commanded all the nobles to obey him, on pain of his future vengeance. At length he marched from Delhi, after a residence of 58 days, carrying with him a treasure in money amounting at the lowest computation to eight or nine lakhs of rupees, besides, to the value of several lakhs or millions sterling, in gold and silver plate, valuable furniture, and rich stuffs of every description, and jewels of inestimable price. He also carried off many elephants, horses, camels, and led away several hundred of the most skilful workmen and artisans.

Up to the taking of Delhi, he was perhaps less sanguinary than the generality of Asiatic monarchs. He had been a rigorous though not unjust master; but after the sack of Delhi he gradually became a cruel and capricious tyrant. The first years after his return from India were occupied in the conquest of the kingdoms of Khorasan, Khiva, and Bokhara, which he subdued and evacuated. He attempted to reduce the hill tribe of Lezgi, and led three campaigns against the Turks; but he became doubtful of the Persians, all of whom continued Shi'ahs at heart, and was especially jealous of his eldest son, Razza Kuli. In the belief that a wound he had received in a forest when hunting had been inflicted by an emissary, he put out his son's eyes. His remorse, instead of softening his heart, exasperated his fury, and he taunted all who entreated him for mercy with their failure to intercede when his own son was in danger. His cruelties and extortions led to revolts, which drew on fresh enormities; whole cities were depopulated, and piles of heads raised to consummate their ruin; eyes were torn out, tortures inflicted, and no man could count for a moment on his exemption from death in torments. During the last two years of his life, his rage was increased by bodily sickness, until it partook of frenzy. On the day before his death, while labouring under a feeling of impending evil, he leaped on his horse in the midst of his camp, and was on the point of flying from his own army, to take refuge in a fortress. But he calmed down, and sent for the Afghan chiefs in his service, appealed to their fidelity for the preservation of his life, and ordered them to displace his Persian guards, and seize on the principal nobles.

These orders became known, and his death was resolved on. A number of conspirators, among whom were the captain of his guard and the chief of his own tribe of Afshar, entered his tent at midnight. They involuntarily drew back when challenged by that deep voice at which they had so often trembled, but they soon recovered their courage. One of them made a blow at the king with a sabre, and brought him to the ground; he endeavoured to raise himself, and attempted to beg his life, but the conspirators redoubled their blows until he expired. He had been the boast, the terror, and the execration of his country (A.D. Sunday, 10th May 1747, A.H. 10th Jamadi-ul-Awal 1160). The Afghans, about 4000 in number, led by Ahmad Khan Abdali, unaware of their master's death, on the next morning made an attack on the Persians, in the hope of being still in time to rescue the Shah. In this Ahmad Khan Abdali was joined by the Uzbaks, but they were worsted and compelled to retreat to their own country, which they did in good order.

Nadir Shah's plunder destroyed the Moghul empire. The Mahrattas, the nawab of the Carnatic, the Asaf Jahi family of Hyderabad, the subahdars of Bengal and Oudh, and the Jat of Bhurtpur, all declared for independence, and set the imperial power at defiance.

One of Nadir Shah's features of policy was the colonization of the countries he conquered, and in pursuance thereof he encouraged settlement in Afghanistan by the various tribes of the vast Persian empire. At the time of his death, numbers, under such intention, had reached Meshed, and were subsequently invited to come by Ahmad Shah. Hence at Kabul, at this day, are found Juanshir, Kurd, Rika, Afshar, Bakhtiari, Shah Sewan, Talish, Baiyat, in short, representatives of every Persian tribe. Under Ahmad Shah and his successors they formed the principal portion of the ghulam khana, or household troops.

Ouseley mentions that one of the attendants, who at a levee presented to him pipes and coffee, was a grandson or great-grandson of the mighty Nadir Shah. — *Elphinstone's India; Tr. of a Hindu; Rennell's Memoir; Ouseley's Tr.; Cunningham's Sikhs; Pere Bazin, Lettres Edifiantes; Balfour's Memoirs of Hazin; Elliot's India; Sair-i-Mutaakhirin; Vambery; Bailie; Fraser in Tr. R. Geog. Soc.; Oriental Biography.*

NADIYA, a small town on the west bank of the Bhagirathi, in lat. 28° 24' 55" N., long. 88° 25' 3" E., which gives its name to a district of Bengal. Nadiya is at the head of the Gangetic delta. Along the entire north-eastern boundary flows the wide stream of the Padma, which is now the main channel of the Ganges; and all the remaining rivers of the district are offshoots of the great river. The Bhagirathi on the eastern border, and the Jalangi and the Matabhanga meandering through the centre of the district, are the chief of these offshoots, and are called distinctively the Nadiya rivers. But the whole surface of the country is interlaced with a network of minor streams, communicating with one another by side channels. The Jalangi flows past the civil station of Krishnagar, and falls into the Bhagirathi opposite the old town of Nadiya.

Of Plassey, the memorable scene of Clive's victory over Suraj-ud-Dowla, on the 23d June 1757, only a small fragment now remains. The Bhagirathi, on

whose left, or east, bank the battle of Plassey was fought, has eaten away the scene of the strife, as the Jalangi river, in the same district, has eaten away the city of Nadiya. As early as 1801, the river had eaten away the actual field of battle; and a traveller recorded in that year that 'a few miserable huts, literally overhanging the water, are the only remains of the celebrated Plassey.' The neighbourhood relapsed into jungle, and was long a favourite haunt of river dacoits. Part of the site is now covered by the waters of the Bhagirathi, the rest stretches out as a richly cultivated plain, and the solitary surviving tree of the historic mango grove is held sacred by the Muhammadans.

It was the capital of Lakshman Sen, the last independent Hindu king of Bengal. It is the birthplace of Chaitanya, a great Hindu religious reformer in the end of the 15th century. The descendant of the rajas of Nadiya resides at Krishnagar. The family is of great antiquity and sanctity. They trace descent in direct line from Bhattacharyya, the chief of the five Brahmans imported from Kanauj by Adisur, king of Bengal.

The aboriginal races are Chamar, Bagdi, Chandal, and Muchi. When Clive, in 1757, defeated the nawab Suraj-ud-Dowla, Maharaja Krishna Chandra Raya aided the British. He was the Mæcenas of his age.

Nadiya is famous for its Sanskrit schools or *tol*. Nyaya Sastra or logic, and Smriti or jurisprudence, have been always sedulously and successfully cultivated here. Soon after the foundation of Nadiya, Abdihodh Yogi migrated there from the Upper Provinces. He was the first to set up a school of logic, for the cultivation of which the city has since been famous. His principal disciples were Sankar Tarkabagis and Baypti Siromani, both of whom wrote several works on logic.

Vasu Deva Sarabwabhau was the founder of another *chatuspati*, or regular school for logic, in the village of Vidyanagara, in the vicinity of Nadiya. Of the numerous students who matriculated at the *chatuspati*, the most distinguished were Raghu Rama and Raghunatha Siromani. Raghu Rama's commentaries have earned for him a conspicuous place among Hindu juriconsults. Raghunatha Siromani has left a commentary on the Gautama Sutra, which, for profound knowledge of Nyaya and the subtlety of dialectics, and for felicity of illustration, challenges the admiration of the oriental world.

Raghunatha was the author of another work exposing the errors of the Chintamani, a standard treatise on the Nyaya Sastras, written by Ganges Upadhyaya. The work is entitled *Didhiti*, or a Ray of Light. Professing to be a critique and a commentary on Chintamani, it is one of the most exhaustive treatises on the Nyaya Sastras. Raghunatha proceeded to Mithila, and held a literary controversy with the pandits there. He carried away the palm, and his intellectual victory conferred on Nadiya the power of bestowing degrees on successful students. It gave an unprecedented impetus to the progress of philosophical studies. Students flocked there from all parts of the country. Several of them ripened into profound and distinguished pandits, and the works produced by them are considered of the highest authority. Among these works may be mentioned

the *Sabdasaktiprakasika*, by Jagadis Tarkalan-kar; the *Saktipad* and *Muktipad*, by Gadadhar Bhattachariya; and the annotations on Siromani, by Jagadis and by Gadadhar; and the *Siddhanta Muktabali* of Viswanatha Nyayapanchanan.

The decadence of learning in Nadiya attracted the attention of the British Government as early as 1811. On the 16th March of that year, Lord Minto recorded a minute advocating the establishment of Sanskrit colleges in Nadiya and Tirhut.—*Calcutta Review*, No. 109, p. 97.

NADOL, a town in the Jodhpur State in Rajputana. Its raja, Rao Lakha, a Chauhan, was one of the princes who opposed Mahmud when advancing against Somnath. It has a temple of Mahavira, the last of the 24 Jain apostles, a fine piece of architecture, with vaulted roof, in the most ancient style of dome in the east. The stones are placed by a gradual projection one over the other, the apex being closed by a circular keystone. The toran in front of the altar is exquisitely sculptured, as well as several statues of marble, discovered about A.D. 1700 in the bed of the river, when it changed its course. It is famed also for its Channa Baoli, an immense reservoir.

NADOLI. HIND. A stone engraved with a verse of the Koran, and suspended as a charm round the necks of children.—*Herklots*.

NA-DOUNG. BURM. Ear ornaments, ear tubes, cylinders of gold $1\frac{1}{2}$ inches long, $\frac{3}{4}$ inch diameter, introduced into the lobe of the ear of the Burmese men and women. The image of Gautama is always found with long pendent ear lobes, reaching to his shoulders.

NAF, the navel. Naf-talna or Naf-ukharna, meaning a disease caused by the shifting of the navel, by Muhammadans an imaginary removal from its place of the navel cord, umbilical vein or coeliac artery.—*Gloss*.

NA-FARMAN. HIND. *Delphinium ajacis*. Na-farmani, a blue, lilac, or mauve colour from the flower of *Cheiranthus annuum*.

NAFIS-bin-IWAS, author of an Arabic commentary on Ala-ud-Din Ali's commentary on Aristotle's book on the Principles of Medicine. He styled it *Hull-i-Mujiz-ul-Qanun*.

NAFR. PERS. HIND. A servant, a man, an individual. In the west of Bengal the Nafr and his offspring were slaves, transferable and saleable. In Purneya the Nafr was sometimes a domestic slave, sometimes an agricultural slave. In the native cavalry of India the term is applied to a horse-keeper or groom, also, though rarely, to a person who is hired to ride a horse, equivalent to *assami*.

NAGA, in Hindu mythology, a demigod, with the face of a man, the tail of a serpent, and the expanded hood of the cobra di capello, created by Kadra, wife of Kasyapa, to people Patala, where they reign in great splendour. Hence their other name *Kada-veya*. The snake-gods were worshipped in Kashmir, and the cobra snakes continue to be worshipped throughout India by all Hindus.—*As. Res.* xv. 10, 94.

NAGA, a Scythic race who appear to have occupied part of India prior to the appearance of the Aryans. In the mythology of India they are described as true snakes. In the Persepolitan inscription, Xerxes calls himself *Nagus* or *Nuka*, the Greek *Anax*, and some writers have surmised that this may be the true meaning of the Naga

dynasties of Kashmir and Magadha. A Naga race seem to have ruled in Magadha until dispossessed by the Aryan Pandava. Whether they came from the N.E., whilst the Aryan race advanced from the N.W., is not known. But the races seem to have come in contact in the lands where the Jumna joins the Ganges, at a time when the Aryans were divided as to the object of their worship between Indra, Siva, and Vishnu. One of the opening scenes of the Mahabharata describes the destruction of the forest of Khanduva, and a great sacrifice of serpents; and though the application of the term Nag or Naga has come to be taken literally, there can be no doubt that the descriptions in the Mahabharata, and as to Krishna's exploits against snakes, relate to the opposing Naga race. In India the term Nag or Naga is applied to the cobra serpent, and the race who were so designated are believed to have paid their devotions to that reptile, or took it as their emblem. They are mentioned in the Mahabharata (B.C. 1200) as causing the death of Parikshit, which led to their great slaughter by Janumajaya. But a Naga dynasty was still dominant B.C. 691, likewise when (B.C. 623) Sakya, a prince of the Solar race, was born, and it was this race who placed Buddhism on a secure basis in India, and led to its adoption by Asoka as the state religion.

A Naga dynasty ruled over Magadha at the date of Alexander's invasion, and the reigning prince bore the name of Nanda. His minister Chandragupta, the Sandracottus of the Greeks, assassinated the Naga prince, and seized upon the throne for himself; and a Naga dynasty, tributary to the Gupta, were ruling to the south of the Jumna during the first three centuries of the Christian era. A Naga race are said also to have occupied Ceylon, on the northern and western coasts, before the Christian era.

Colonel Tod shows, in the annals of Marwar, that the Rahtor race conquered Nagore, or Nagadurg (the Serpent's Castle), from the Mohil, who held 1440 villages so late as the fifteenth century. So many of the colonies of Agnicula bestowed the name of serpent on their settlements, that he was convinced all were of the Tak, Takshak, or Nagvansa race from Sakadvipa, who, six centuries anterior to Vikramaditya, under their leader Sehesnaga, conquered India, and whose era must, he thinks, be the limit of Agnicula antiquity.

The Nagbansi chieftains of Ramgarh Sirguja have the lunettes of their serpent ancestor engraved on their signets in token of their lineage. The Manipur rulers were also Scythic, and most of the Manipur people continued to worship snakes till the beginning of the 19th century, as indeed is still the custom amongst all Aryan and non-Aryan tribes throughout the Peninsula of India.

Naga and Takshak are Sanskrit names for a snake or serpent, the emblem of Budha or Mercury. The races who dwelt in India prior to the advent of the Aryans are alluded to in ancient books as Naga, Rakshasa, Dasya, Asura. The whole of the Scythian race are mythically descended from a being half-snake and half-woman, who bore three sons to Heracles (Herod. iv. 9, 10), the meaning of which probably is that the ancestral pair were of two races, and the offspring took the snake as their emblem, similarly to the Numri or Lumri Baluch of the present day, who are foxes, and the Cuch'hvaha Rajputs, who are

tortoises. The snake race seem to have spread into North America.* Abbé Domenech mentions an Indian race there who traced their origin from the snakes of Scythia. The serpents who invaded the kingdom of the Lydians just before the downfall of Croesus, were probably the Scythian Naga (Herod.) race.

The Naga race were so numerous in Ceylon that it was called Nagadwipo, as Rhodes and Cyprus received the designation of Ophiusa, from their being the residence of the Ophites, who introduced snake-worship into Greece. According to Byrant, Euboea is from Oubaia, and means serpent-island. Strabo calls the people of Phrygia and the Hellespont the Ophio or serpent races.—*Tod's Rajasthan*.

NAGA. All Hindu sects have followers to whom this designation was applied. The Naga in all essential points were of the same description as the Viragi or Sanyasi, but in their zeal they used to leave off every kind of covering and go naked, and were the most worthless and profligate members of the Hindu religion. They always travelled with weapons, usually a matchlock, a sword, and shield, and sanguinary conflicts have occurred between Naga mendicants of opposite sects. The Saiva Naga were the leading actors in the bloody fray at Hardwar in 1790, which excluded the Vaishnava from the great fair there until the country came under the sway of the British. On that occasion 18,000 Viragi were left dead on the field. A party of them attacked Colonel Goddard's troops in their march between Dorawal and Herapur, and on a critical occasion 6000 of them aided Siindia. The Saiva Sanyasi smear their bodies with ashes, allow their hair, beards, and whiskers to grow, and wear the projecting braid of hair called the jata; like the Viragi Naga, they used to carry arms, and wander about in bodies soliciting alms or levying contributions. The Saiva Naga were generally the refuse of the Dandi and Atit orders, or men who have no inclination for a life of study or business. When weary of the vagrant and violent habits of the Naga, they re-entered one of the better-disposed classes which they had originally quitted.

Naga is also applied to a class of the Dadu Panthi Hindu sect, who carried arms and served Hindu princes, making good soldiers. A sect of the Gosain are likewise termed Naga, because they perform their ablutions (Sth'nanam) in a state of nudity. These Gosain profess asceticism, but well-informed Hindus believe that almost all of them originally adopt the tenets of the sect with the object of securing a living without labour, and that few, not more than one in a hundred, live as celibates; and the personal appearance of these men, sleek, with well-covered muscles, supports this view. They wander to very distant places, begging for their mat'h or monastery, and have very scanty clothing, only a small strip of cloth between their thighs. Immoralities, when detected, are punished by fine. The ascetic Gosain can withdraw from the monastery on payment of a fine, can marry and engage in business. Only the Brahman, Kshatriya, and Vaisya are admitted as Gosains. The head of the mat'h is styled mahant. In the 19th century, under the settled rule of the British Government, the Naga migrants have greatly disappeared, especially from the towns, seats of busy commerce.

NAGA, also Nag. HIND. The term by which, in the Hindi tongue, the Naia snake is designated, known to Europeans as the cobra, also cobra di capello, the Naia genus of venomous colubrine snakes of the family Elapidae. There is only one species, the Naia tripudians, Merr., which has a moderate body, with rather short tail. There are several varieties. It has a small or moderate eye, with a round pupil, a poison fang in front of the maxillary, which is but little moveable or erectile, and only one tooth behind. The anterior ribs are elongate and erectile, and the skin of the neck is dilatable.

NAGA HILLS are in the S.E. corner of Assam, between lat. 25° 13' and 26° 32' N., and long. 93° and 94° 13' E. It is a mountainous border-land between the settled district of Nowgong, in the Brahmaputra valley, and the Feudatory State of Munnipur. It is inhabited by tribes termed Naga, who, in 1875, treacherously murdered Lieutenant Holcombe and his followers, and in 1879 killed Mr. Damant, the deputy-commissioner.

In 1870 the numbers of the races in the hills were estimated at 82,444, viz. Assamese, 705; Aitanya, 355; Cachari, 3505; Mikir, 90; Kuki, 2524; and Naga, 66,535. The several Naga families dwell in one house.

They are a large number of virtually independent tribes of the Indo-Chinese race, and speaking different dialects, who occupy the hill country from the northern boundary of Cachar to the banks of the Dihang river, in the extreme east of Assam. The British portion is occupied by the Angami Naga, the Kacha, and the Rongma Naga. The last are a small and inoffensive clan, engaged in traffic. The other Nagas are brave and martial, but vindictive and treacherous. The Angami, from 1851 to 1865, made 19 raids into the plains, and killed 236 people.

The dress of the Angami Naga consists of a blue or black kilt, prettily ornamented with cowrie shells; and a coarse brown cloth made of the bark of the nettle plant is loosely thrown over the shoulders. The warrior wears a collar round the neck, reaching to the waist, made of goat's hair, dyed red, intermixed with long flowing locks of hair of the persons he has killed, and ornamented with cowrie shells. The relations of a murdered person instantly, if possible, spear the murderer, without reference to the council of elders, unless the delinquent take refuge in another village, when he may escape for years; but years after he may be surprised and killed. If a man's wife is seduced, the husband will surely spear the seducer on the first opportunity. The Angami Naga imagine there are good and evil spirits residing in their hills. To one they offer up sacrifices of cows and mithun; to another, dogs; and to a third, cocks and spirituous liquor. At sixteen years of age a youth puts on ivory or wooden armlets or red-coloured cane collars round his neck, puts brass ear-rings in his ears, and wears the black kilt. If a man has killed another in war, he wears three or four rows of cowries round the kilt, and ties up his hair with a cotton band. He is entitled, also, to wear one feather of the dhuno bird stuck in his hair, one feather being added for every man he has killed, and these feathers are also fastened to their shields. They also use coloured plaited cane

leggings, wear the war sword, spear, shield, and choonga or tube for carrying panjies. They also attach to the top of the shield two pieces of wood in the shape of buffalo horns, with locks of hair of human beings killed in action hanging from the centre.

Colonel Dalton says (p. 39) it was the custom of some of the Naga clans to allow matrimony to those only who had their faces elaborately tattooed. To this rite of disfiguration they are not admitted till they have taken a human scalp or a skull, or shared in some of their expeditions. Scalps need not be trophies of honourable warfare, nor even be taken from the bodies of declared enemies. A skull may be acquired by the blackest treachery, but so long as the victim was not a member of the clan, it is accepted.

The Naga do not consume milk, and cattle are not used for tilling the ground, but are kept chiefly for sacrifices and feasts. They eat every kind of flesh. That of the elephant is highly esteemed; they are not averse to tiger's flesh. Their houses are gable-ended, and about 30 or 40 feet long by 12 or 16 feet wide. Each house is divided off into one or two rooms; the pigs, fowls, wife, and children are all huddled together with the grain in large bamboo baskets five feet high, and four feet in diameter, in the same room. In a large building called Rangkee or the Dakachang, all the boys of the village reside until they are married. The building is about 60 feet long, and 20 high, with gable-ends. The inside of the house consists of one large room, in the centre of which a wood fire is kept burning on the ground, and wooden stools are arranged in rows for the boys to sleep upon. At one end a small room is partitioned off for the accommodation of an elderly man, who is superintendent of the establishment. The Hilokee (a building of similar dimensions and construction with the Rangkee) is devoted entirely to the use or residence of the girls of the village, who live in it altogether, in the same manner as the boys, until the day of their marriage. The damsels are all decently attired. A large sheet with coloured stripes is worn round the waist, extending to the knees; a blue cloth is folded over the breast under the arms; a profusion of glass bead necklaces adorn their necks, with a number of brass ear-rings of all sizes. An old woman superintends the establishment, and the utmost order prevails in both the Rangkee and the Hilokee. The boys and girls take their meals with their parents, work for them during the day, and at night retire to their respective asylums. All the youths see the girls during the day without the smallest restraint, and they select their own wives, and are married by the consent of their parents. The Naga of Cachar have several graceful dances, in which the sexes mingle.

The Tun-khul or Luhupa, a Naga tribe of the N.E. frontier, shave the sides of their heads, leaving only a ridge of hair on the top about five inches broad, with a small knotted pig-tail behind. On the eldest son of a family marrying, he takes possession of the entire property, houses, fields, etc., of his parents, who quit their home, and they are thus displaced by successive sons' settlements. The men have only a narrow piece of cloth round the waist, one end of which hangs in front, and they dispense with it when engaged in any hard work. The men also put the prepuce

and gland in a ring of deer horn or ivory. It is removed for micturition and at night, but worn from puberty till death, and they appear and work and sit in women's presence with this sole covering.—*Dr. Brown; Fytche, ii. p. 350; Butler's Assam; Wilson; Mr. Hodgson; B. As. S. J., 1865; Latham's Ethn.; Rep. Brit. Ass.; Dalton's Ethn.*

NAGA-LEKA-BALJIWANLU, or the Chippagiree, are worshippers of Siva, in the form of a cobra. The Siva Chippaga wanlu are worshippers of Siva; they are found in the Bellary collectorate of the Madras Ceded Districts.

NAGA-LOKA. SANSK. Patala, the residence of the Naga.—*Dowson.*

NAGA-NANDAVA, a Buddhist drama in five acts, by Sri Harsha Deva. Mr. Boyd translated it.

NAGA-PANCHAMI is a festival held on the fifth day of the first or bright half of the lunar month S'ravana, which generally corresponds with August of the Christian year. S'ravana is a month in which the Hindus generally have some vrata or ceremony to perform every day, and sometimes more than one festival occurs on one and the same day. The fifth day of the month is considered sacred to the Naga or serpent. On this day, early in the morning, each family brings an earthen or clay representation of a serpent, or paints a family of five, seven, or nine serpents with rubbed sandal-wood or turmeric. If there be a Naga temple in the village, every one goes there to perform worship. The women proceed to snakes' holes, circle round hand in hand, prostrate themselves, and pray for blessings. Offerings are then made to snakes of milk, grain, and other articles poured into holes. Battisa-S'iralen is a town in Satara collectorate, in lat. 16° 57' N., and long. 74° 15' E., famous as a place of serpent-worship. Here, at the present day, the snakes called Nagakuli, said to be not very poisonous, are actually caught on the day of the Naga-panchami, and kept either in earthen pots or covered bamboo baskets. They are fed with milk and edibles, and worshipped in other respects like the snake images and drawings of snakes. The day after the Naga-panchami they are taken back to the jungles and set free. There is at this town a curious tradition in connection with the Gorakha-chincha tree (*Adansonia digitata*) or the tamarind of Gorakha. Tradition ascribes this tree to be the result of a miracle performed by a saint called Gorakhanatha or Gorakshanatha. A Naga temple, dedicated to the goddess Naga Tambiran, exists in the island of Nainativoe, S.W. of Jaffna, in which consecrated serpents are reared by the pandarams, and daily fed at the expense of the worshippers. Such temples are to be seen in many places in the south of India. There are several in the town of Madras, and one of great extent at Vasarapad, a suburban village on its north, where crowds of Brahman women come every Sunday morning to worship. The priests are the wild Yenadi.

NAGAPATANA, a town in the district of Tanjore, with a celebrated temple of Naga-natha. Inside the temple, near the idol of Naga-natha, there is a white ant hill, to which large offerings are made in honour of the serpent-god.

NAGAR, HIND., from Nagara, a town, any town, as Nagar, Ahmadnagar, Vizianagram. Hindus have seven sacred nagara, viz. Ayodhya,

Mathura, Maya (Gaya), Kasi or Benares, Kanchi or Conjeveram, Avanti or Avantika, the modern Ujjaini, and Dwaraka or Dwaravati.—*Dowson.* See Kapilavastu.

NAGAR, or Bednur, a town which gives its name to a division of Mysore, comprising the districts of Shimoga, Kadur, and Chittuldrug. The Nagar district is to the north of Coorg. It consists of table-topped hills, 4000 to 5000 feet in mean elevation; the Baba Booden Hills are 5700 feet, and some parts are 6000 feet. Coffee is largely grown; its climate and vegetation appear to be identical with that of Malabar. As with all other parts of the western chain, the climate of the western parts is excessively humid. The rains at the town of Nagar or Bednur, elevated 4000 feet on a spur to the westward of the chain, are said to last for nine months, during six of which they are heavy. It belonged to the ancient Chalukya dynasty. It was taken by Hyder Ali, and he found in it many krur of rupees.—*Hooker and Thomson.*

NAGAR or Nagore, a small town on the Coromandel coast, in lat. 10° 49' 30" N., and long. 79° 53' 24" E., three miles N. from Negapatam. It is a seaport town in the Tanjore district, chiefly inhabited by Muhammadans of the Labbai race. It is the ancient Thelvir. It has a celebrated mosque, with a beautiful minaret 90 feet high, more resembling a Chinese pagoda than the minar of India. It is an excellent landmark.—*Horsburgh.*

NAGARAHARA, or Jalalabad, is the Nang-go-lo-ho-lo of the Chinese Buddhist pilgrim Hiwen Tshang of the 7th century A.D. Its capital was at Hidda, the Hi-lo of the Chinese, and it was the Nagara or Dionysopolis of Ptolemy. The natural boundaries of the district are the Jagdalak pass on the west, and the Khaibar pass on the east, with the Kabul river to the north, and the Safed Koh or Snowy Mountains to the south. Within these limits the direct measurements on the map are about 75 by 30 miles, which in actual road distance would be about the same as the numbers stated by Hiwen Tshang. The position of the capital would appear to have been at Begram, about two miles to the west of Jalalabad, and five or six miles to the W.N.W. of Hidda, which every inquirer has identified with the Hi-lo of the Chinese Pilgrims. The town of Hi-lo was only four or five li, or about three-quarters of a mile, in circuit; but it was celebrated for its possession of the skull-bone of Buddha, which was deposited in a stupa or solid round tower, and was only exhibited to pilgrims on payment of a piece of gold. Hidda is a small village five miles to the south of Jalalabad, but it is well known for its large collection of Buddhist stupas, tumuli, and caves, which were explored by Masson.—*Cunningham's Ancient Geography, p. 44.*

NAGARCOIL, a small town in the State of Travancore, near Cape Comorin, in lat. 8° 11' N., and long. 77° 28' 41" E. Its name means snake-temple, and it is one of the centres of this worship. The principal image of Naga Amman or the Snake Mother, of copper-gilt, and in the form of a serpent, is, like other idols, carried in procession in a car once a year. Inside the temple and without are numerous stone images of snakes. People assemble on Sundays and other special days from many quarters, bringing milk, sugar, and coconuts to worship the serpent-goddess, and for the

living cobras. The priests keep up the report that within a circuit of a mile from the temple no snake-bite will be mortal; and daily some sand from the seashore is distributed from the temple as a charm. The principal seat of the serpent-worship in Travancore is at Manarchala in Kartikapalli district. The Rev. Mr. Mateer mentions that a family in the Cochin country made a household god of a cobra. It dwelt on their premises, and was served with daily offerings of food by each member of the family. A girl about ten years of age was bitten by it, and Dr. Doran approached the house just as she had breathed her last, and he asked them if they had killed the snake, but the child's mother replied, 'Sir, if we were to kill the cobra all the other members of the family would die likewise.' At Warkkala several members of a family of Ilavars having been attacked one after another with leprosy, a sorcerer told them that they had failed to pay due homage to Naga Raja, and should erect a domicile for him to reside in, and make special offerings to pacify his wrath. A large quantity of rice, coconuts, and other provisions was accordingly offered.—*Mateer's Travancore*, p. 326.

NAGARI. HIND. Relating to a town or city, applied especially to the alphabet of the Sanskrit language, and its modifications in Hindi, Mahrati, etc., sometimes with deva (divine) prefixed, as Deva Nagari. At the present day the Hindi and Mahrati tongues are written in Deva Nagari character, the Burmese in the Pali; the Tamil, Telugu, Canarese, Malcalam, Bengali, Gujerati, Uriya, and others have each their own separate character. The four varieties of the Nagari character are the Gurmukhi, that used by the Dogra Rajputs, the Lundi used by mercantile firms, and the Thakuri of the Kangra district. In 1881 the numbers speaking Mahrati were 16,966,665; Panjabi, 14,246,884.—*Cust.*

NAGARI NOSE, a peak of the Nagari Hills, in the North Arcot district, Madras, in lat. 13° 22' 53" N., and long. 79° 39' 22" E., 2824 feet above the sea, and 50 miles inland. It is visible from the sea in fine weather, and is a recognised landmark.

NAGARJUNA, a Buddhist innovator, founder of the Mahayana school.

NAGARJUNA CAVE, one of the Behar caves, in the neighbourhood of Rajagriha. The Nagarjuna cave and Haft Khaneh or Satgarh group are situated in the southern arm of the hill at some little distance from the Brahman Girl and Milkmaid's Cave. Another group is the neighbouring Karna Chapara and Lomas Rishi caves. See Architecture.

NAGAR KOT, an ancient town in the Kangra district. Near it is the temple of Jwala Mukhi.

NAGASAKI, a chief seaport town in Japan. Porcelain made at Nagasaki is solid, and at the same time elegant. Exquisitely-worked basket cups of the thin porcelain are bound by a fine network of cane or young bamboo, so neatly woven that the meshes are imperceptible. The origin of this beautiful texture was, no doubt, a protection to the fingers of tea-drinkers; and many are so well done that they appear to have been painted on the cup.—*Frere, Antipodes.*

NAGBANSI, a ruling race in Chutia Nagpur and in Jashpur, also styled Nagesar. Their faces are of an exaggerated Turanian type. The nose

is low, scarcely rising at all between the eye, very broad across the nostrils, and looks as if it had been there sliced off. The lips are very full and prominent, and the chin receding. Their faces generally present a Chinese flatness of surface; eyes on a level with the cheeks and frontal bones, but straight; complexion tawny to brown. The term is also applied to a race of cultivators known as the Kisan, but who do not claim to be clansmen of the Chutia Nagpur rajas, who are the head of the Nagbansi or Naga. These Kisan cultivate on the skirts of the forest.—*Dalton's Ethn.* p. 136.

NAGINA, a town in the Bijnor district of the N.W. Provinces, celebrated for its manufacture of gun-barrels, ebony carvings, glassware, ropes, and matchlocks.—*Imp. Gaz.*

NAGKESUR. HIND. Flower-buds of *Calsassion longifolium*, also of *Mesua ferrea*. The root of the *Mesua ferrea* tree is considered astringent and refrigerant. One tola is taken internally, and it is applied externally in cynanche. The flower-buds of *C. longifolium* are used for dyeing silk. They have the fragrance of violets.—*Genl. Med. Top.* p. 147.

NAGODE, or Ucheyra, a State in Baghelcund. Like Koti, the state of Ucheyra was originally included as one of the feudatories of Punnah in the sunnud granted to raja Kishore Singh. The raja rendered good service during the mutinies, and was rewarded with the grant of a jaghir from the confiscated estate of Bijragogarah. He also received the right of adoption. The area of this petty state is 450 square miles, and the population 70,000. The revenues are Rs. 72,400. Nagode State is ruled by a Parihar Rajput.

NAGPORE or Nagpur is the name of a town and a district in the Central Provinces. The Nagpur district is between lat. 20° 36' and 21° 43' N., and long. 78° 17' and 79° 42' E., and lies immediately below the great table-land of the Satpura range. The province lapsed to the British in 1853, through the death of the raja, Raghoji Bhonsla III., without heirs. Its area is 3786 square miles, comprising the districts of Nagpur, Bhandara, Chanda, Wardha, Balaghat, and Upper Godavery. The aboriginal population were Gond, but many Hindu castes have settled in it for centuries, largely Mahratta Kunbi and their cognates, with the Dher, Chamar, and Mhang, and other semi-Hinduized races. The first rulers are said to have been Gauli or Ahir chieftains, whose exploits yet live in the songs of the villagers. The historical knowledge, however, begins with the 16th century, when the district formed part of the Gond kingdom of Deogarh. The Bhonsla rajas of Nagpur commenced in 1734, when Raghoji Bhonsla was nominated Sena Sahib Suba, or general of the Mahratta confederacy. Raghoji Bhonsla was the son of Bimbaji, the third son of Bapuji, the brother of Parsaji. In 1739 and again in 1743 he was called in to aid the Gond family, and on the latter occasion he remained, taking advantage of the difficulties in which the Peshwa found himself placed; in 1744 Raghoji obtained for himself a sunnud, conferring upon him the right of collecting all revenue and contributions from Lucknow, Patna, and Lower Bengal, including Behar, and vesting him with the sole authority to levy tribute from the whole territory from Berar

to Cuttack. Bold and decisive in action, he was the perfect type of a Mahratta leader. He saw in the troubles of other states only an opening for his own ambition; he did not wait even for a pretext for plunder and invasion. Though he was unscrupulous in his dealings with his neighbours, yet he was liked and admired by his countrymen. With him occurred the great influx of Mahrattas, which resulted in the spread of the Kunbi and cognate Mahratta tribes over the entire district. And in this there was deep policy, as the Bhonslas would be seen holding the Nagpur territory from the Gonds, and not subject to the paramount power at Poona, and thus deriving a position superior to that of other military chiefs of the Mahratta empire, who owed their elevation to the Peshwa, and held their fiefs by his favour. Raghoji, as a leader of predatory expeditions, had, at the time of his death in 1755, established the Mahratta supremacy over the country between the Nerbadda and the Godavery, from the Adjunta Hills eastward to the sea. He was succeeded by his eldest son Janoji, who adopted as his heir his nephew Raghoji II., but was put aside by Madhoji, a brother of Janoji. Madhoji died 1788. Raghoji II. then resumed, and lived till 1816. During his reign he joined with Sindia; their united armies were overthrown at Assaye and Argaum, and Raghoji lost nearly a third of his dominions. Raghoji was succeeded by his only son, Pursoji. This prince being incapacitated for government by a complication of diseases, a regency was formed under Madhoji Bhonsla, better known as Appa Sahib, Pursoji's cousin. In 1817 Pursoji died suddenly, having been murdered, as was afterwards discovered, by Appa Sahib. Soon after his succession, Appa Sahib had made common cause with the Peshwa, who was then inciting all the Mahrattas to unite against the British. After an unsuccessful attempt to regain his hold of Nagpur, he fled to Hindustan in February 1819, and he died at Jodhpur in 1840. On the deposition of Appa Sahib, a grandson of Raghoji by his daughter was placed in power on 26th June 1818, and in 1826 he attained his majority, and was entrusted with the administration. A treaty was made with him, by which he ceded for ever territories to pay the cost of the subsidiary force, and assigned lands as a guarantee for the payment of the troops which he was bound to maintain, and which were thenceforth to be under British control. Raghoji retained the administration of affairs till his death, 11th December 1853. He died without a son, without any heir whatever, and without any adopted child, and it was determined to incorporate Nagpur State with the British territories. In 1855 the surviving widows of the late raja adopted as their son and heir Janoji Bhonsla, a collateral relation of the raja in the female line. In consideration of the loyalty of the family during the rebellion of 1857, the title of Raja Bahadur of Deor, and the lands of Deor in the district of Satara, were conferred in perpetuity on Janoji and his heirs, whether by blood or by adoption. The family received pensions. The zamindars with whom written engagements were contracted were those of Chatisgarh, Chanda, and Deogarh or Chindwara. The Chhattisgarh zamindars, including the raja of Bustar, with whom a separate treaty had been concluded, and

the rajas of Kharond and Kakair, were 27 in number, and paid an annual tribute of Rs. 1,28,082. In Chanda there were 18 petty Gond zamindars, paying altogether a tribute of only Rs. 420. The Gond zamindars of Deogarh were 14 in number, who usually paid only a trifling quit-rent. Besides these there were 32 zamindars in the Wainganga districts, who paid a total tribute of Rs. 1,41,594, but with whom no written engagements were formed.

The Nagpur territory and the Saugor and Nerbadda territory have since been formed into a separate administration under a Chief Commissioner, to which have been added Sumbulpur and its dependencies. The territories under the jurisdiction of the Chief Commissioner are now known as the Central Provinces. The principal chiefs in the Central Provinces are the rajas of Bustar, Kharond, and Mukrai, to all of whom the right of adoption has been conceded. The raja of Bustar pays an annual tribute of Rs. 4000. The Kharond chief pays Rs. 4500. The revenues of Bustar and Kharond are respectively Rs. 25,870 and Rs. 29,878, and the population about 80,000 in each state.

Nagpur town is large and straggling, about 7 miles in circuit; it is 85 miles to the north of Chanda. It is the headquarters of the Chief Commissioner. The British military cantonment of Kamptee is in its neighbourhood. Nagpur is situated in an extensive plain, and is, strictly speaking, an open city. A rampart in the usual native style, with occasional round towers, had on some former occasion been commenced, but had in no place been carried to a greater height than 8 feet, and in general less. The extent of the city, as defined by this unfinished rampart, is scarcely 3 miles, but the suburbs, which run close up to the city wall, are not less than 7 miles in circumference, extending chiefly on the north and east sides, and not exceeding 400 yards in depth on the west and south. The language is a mixture of Hindi and Mahrati. The bulk of the population worship Siva as Mahadeva. The agriculturists are chiefly the Kunbi, Mahratta, Pardesi, Teli, Lodhi, Mali, Barhai, and Pardhan, of whom the Kunbi is the best and the most numerous.

NAGUNI, in the Hinduism of Rajputana, figures half-serpent, half-woman. The gras is the griffin of Rajputana. At Barolli, the gras and naguni are represented in a highly-finished sculpture.—*Rajasthan*, ii. p. 716.

NAHAR. ARAB. A river, a canal. Nahri, watered land. Naharina or Nahrain, the Neharajim of the Scriptures. In Syriac, Nahrin is a pure Semitic word, signifying the country between the two rivers, the Mesopotamia of the Greeks, the Jazirah or island of the Arabs, and the Doab of India. Mawar-un-Nahr is the country between the Oxus and Jaxartes.

NAHUSHA, son of Ayus, the eldest son of Pururavas, father of Yagati. In Hindu mythology, it is said by austerity he acquired the dominion over three worlds, but lost it again through a want of virtuous humility. He touched with his feet the great Agastya, who cursed him, and he became a serpent, but was subsequently restored by the influence of Yudishthira.—*Dowson*.

NAI, HIND., signifies a reed, pipe, etc., and Anban or Anbanu, a bag made of the skin taken entire off a sheep. It is a musical instrument

not often seen in Persia beyond the Garm-sair, about Bushahr. In sound, as in make, it resembles the bagpipe; which is expressed by its name, Nai ambana, or, according to the usual pronunciation here, Nai-amboonah. — *Ouseley's Travels*, i. p. 241.

NAI. HIND. Also called Napit, a barber who combines also surgical practice, and is a genealogist. The Nai are pure in Bengal, impure in Behar. In some places they have certain priestly functions assigned to them (originating probably in the importance attached to the operation of slaving on some occasions), and are respected accordingly. — *Dalton, Ethnol.*; *Hindu Castes*.

NAIA TRIPUDIANS. Merr. The cobra di capello snake, common in all parts of British India, Ceylon, the Malay Peninsula. It is a genus of the Elapidae. There are two varieties, and its synonyms are *N. atra*, *Cantor*, *N. Kaonthia*, *Less.*, *N. larvata*, *Cantor*, *N. lutescens*, *Lour.*, and *N. sputatrix*, *Rein.* When the cobra rises in play or for amusement, it spreads out the skin of the neck, from which it gets the Spanish name of cobra di capello, in English the hooded-snake. The spectacled or bin-ocellate variety of the cobra has its neck, on the steel-brown skin, marked with a white, black-edged \square or \triangle , enclosing at either extremity a black ocellus, which is only seen when the hood is expanded. It is found in Southern India and in Burma? It grows to 5½ feet. The monocellate, or one-marked cobra, has a plain white ocellus, with black centre and margin, and grows to 4½ feet in length. It is the cobra of Central India and Burma. The cobra is worshipped by all the races following Hinduism, and by nearly all the non-Aryan races in British India, and its form, as an idol, with one, three, or nine heads, in stone or brass, may be everywhere seen. It is generally represented bending over the idol of the lingam. The cobra sometimes swims out to sea. It is said that the poison can be combated by injecting potash into the veins, but, owing to the rapidity of the poison's action, this, even if true, is valueless. Notwithstanding this, the natives of Ceylon do not kill the cobra when caught, but enclose it in a mat bag with some boiled rice for food, and place it thus in a flowing stream. In Gujerat the Hindus do not kill this or any other snake. See Cobra; Naga; Reptiles; Serpent.

NAIB. ARAB., HIND., PERS. A deputy, a representative. Its Arabic plural is nawab, a title given to the viceroys of the Delhi empire; corruptly nabob of Europeans.

NAICHA or Necha. HIND. The mouthpiece and drawing tube of a hookah.

NAIDU, a division of the Teling Sudra race, the plural of Naik, an honorific term applied to masters, or chiefs of tribes.

NAIK, a chief, a military leader, a head of police under the Vijayanagar dynasty. A division of the Teling Sudras, commonly styled Naidu, as Lutchmana Naidu. Also the titular distinction of the Bhil chieftains. In Cuttack this title was applied to the headman of a village. In the south of India, some of those known as Polygars were so called, and many of the Naiks held lands on military tenure. The leader of a tанда of Binjars takes the title of Naik, in the British Indian army a rank equivalent to a corporal.

In Telingana the titles more frequently met with are Nayakan, Nayaka, Naik, Naeker, Naidu, and Reddi, applied to the Balaja and the Kamavar tribes. These eat together, but do not intermarry. They are classed as Sudra Hindus originally. In the beginning of the 16th century, A.D. 1532, the great Hindu state of Vijayanagar established a Naik dynasty, in the person of Viswanatha Naik, under its protection, at Madura. When the Vijayanagar sovereignty fell, the Naik dynasty of Madura continued to be dominant. The founder of this dynasty, Viswanatha, was the son of an officer of the king of Vijayanagar. He established himself as king of Madura in 1559, and subjugated Trichinopoly soon afterwards. The greater portion of the fort of Trichinopoly, and most of the city itself, were built in his reign. The Naiks ruled Trichinopoly and Madura from 1559 to 1740. The greatest of them was the famous Tirumala Nayakkan, who died in 1659. His grandson, Choka Nayakkan, removed the capital of the kingdom from Madura to Trichinopoly, where he raised the building known as the Nawab's Palace. Its last ruler, a queen, was first aided and then betrayed by Chanda Sahib of Tanjore.

NAIKASHEYA or Nikashatnaja, in Hindu mythology, carnivorous imps descended from Nikasha, mother of Ravana. — Dowson.

-NAI-KUDE, a Gond tribe inhabiting the jungles on both banks of the Pain Ganga, especially in the tract between Digaras and Umarkher, and found about Aparawapet and as far as Nirmul. They have adopted the Hindu dress, and will not eat beef; but they live by the chase, cut wood and grass, and are a terror to their neighbourhood by their depredations.

NAIMISHA, an aranya or forest near the river Gumti, in which the Mahabharata was rehearsed by Sauti to the assembled Rishi. — Dowson.

NAINI TAL, a sanatorium in Kamaon, in the outer ranges of the Himalaya, and 6409 feet above the sea, in lat. 29° 22' N., and long. 79° 29' 35" E. It has a picturesque lake, and the houses of the Europeans were placed on the slope of the mountain; but on the 18th September 1881, two landslips overwhelmed several houses, and about thirty-eight Europeans, civil and military officers, and soldiers. The lake is a mile long and 400 yards wide, between the points Sherku Danda and Luria Kanta. It has good fish. The Naini Tal valley is in the heart of the mountains, two miles long by one broad, all but enclosed, and mostly occupied by the beautiful lake, 6350 feet above the level of the sea. The mountains, composed of igneous rocks, covered with slate, limestone, and shale, with a light friable surface soil, are well wooded with ilex, pine, rhododendron, cypress, and ash; at certain times luxuriantly carpeted with andromedas, pentstemonas, violets, anemones, and rare orchids; and tower majestically 2000 feet over the head of the lake, but gradually taper away where the water debouches into the plains. Geologically, the mountains differ, one side made up of argillaceous schists, the other of black limestone. Free perfusion of air is always maintained throughout the valley. The greatest length of the lake is 4702 feet; its width, at the narrowest part 792, to 1518 at the broadest; its depth ranges from 20 to 93 feet; the circumference 2 miles; superficial area 120 acres. — *Schlagent. Macnamara.*

NAIN SINGH, known to geographers as the Pandit. He was employed with Robert Schlagentweit, under Major Montgomerie and others, in the middle of the 19th century, in exploring the Himalaya. He was born about the year 1825, and was Robert Schlagentweit's assistant. After the murder of his master, he settled down as a schoolmaster in his native village. From this retirement he was called in the year 1863 to become one of the staff of trained native explorers under the orders of Colonel Montgomerie of the Trigonometrical Survey. In 1866 he determined the true position of Lhasa; in 1867 he visited the celebrated gold mines of Thok Jalung; and seven years later he began his most celebrated tour of all, that through Tibet from west to east. During this he visited the capital of the Dalai Lama, took numerous observations, and threw much fresh light on the question of the Sanpu river, and whether its lower course is the Brahmaputra or not. He left Leh in July 1874, and succeeded in crossing the Tibetan frontier, in the disguise of a Lama or Buddhist priest. Passing about 15 miles to the north of Rudokh, he travelled nearly due east for a distance of more than 800 miles, over a new line of country, separated from the valley of the Tsampo, or Great River of Tibet, by an almost continuous range of spur mountains, which trends eastwards from the Gangri peaks, in long. 81° E., up to the Thangla peaks, south of the great Tengri Nur lake, in long. 90° 30' E. His road lay, throughout, over an extensive table-land ranging in height from 13,000 to nearly 16,000 feet above the sea-level, a region containing some gold fields, and numerous lakes and streams, and almost covered with rich pastures. The inhabitants are bands of nomades, who dwell in tents, and regulate their movements by the supply of grass and water available for their flocks and herds. The Pandit struck the Tengri Nur lake at its N.W. corner, and travelled along the northern coast of the lake—a distance of nearly 50 miles—to the opposite corner, whence he turned southwards to Lhasa. He had spent three months at Lhasa on the occasion of his first visit, without being discovered to be a British employé. On the present occasion, one of the first men he met was a Muhammadan merchant, whose acquaintance he had made at Leh. Fearing that he might be betrayed, he hurried away at once. He followed the Tsampo (or Brahmaputra) river for a distance of 30 miles, in a portion of its course through Tibet about 50 miles lower down than the lowest which had been reached by previous explorers, and his observations enabled the course of the river to be laid down approximately for a farther distance of about 100 miles, so that the part which still remains unknown is now materially reduced. He crossed the Bhutan Hills by the route from Chetang via Tawang into Assam, which lies nearly north and south on the meridian of 92°. And finally he brought his work to a close at the town of Odalguri in British territory, and, going down the Brahmaputra river by steamer, reached Calcutta on the 11th March 1875. This exploit closed Nain Singh's public career. He was awarded the Royal medal by the Royal Geographical Society, and the Indian Government granted him a small estate, where he died towards the end of January 1880.

NAINSUKH, also written Nainsook and Nainu, sprigged muslin or other fabric.

NAINSUKH, a valley in Kaghan famous for ghi, which is quite solid, and cuts like cheese.—*Cleghorn, Pan. Rep.* p. 178.

NAIQUE, a non-commissioned rank in the native army equal to a corporal. See Naik.

NAIR, a race on the Malabar coast, following the Hindu religion, and claiming to be of the Sudra caste. They are designated Maleala Sudras. The royal family of Travancore are of this race. The whole of the Nair race and other races there follow the rule of female descent, and from this custom results the practice that a man's heirs are not his own, but his sister's, children. The Kasia, the Koc'h, and the Nair races, as also the artisans, the Teer or Teeyear race, and some of the Moplah Muhammadans of Malabar, have this custom. Among the Buntar in Tulava, also, a man's property does not descend to his own children, but to those of his sister. Most of the people of Malabar, notwithstanding the same diversity of caste as in other provinces, agree in the usage of transmitting property through females only. It is the custom in Travancore among all the races except Ponan and the Namburi Brahmans. The Nair marry before they are ten years of age, but the husband never associates with his wife. Such a circumstance, indeed, would be considered as very indecent. She lives in her mother's house, or, after her parents' death, with her brothers, and cohabits with any person that she chooses, of an equal or higher rank than her own. If detected in associating with any low man, she becomes an outcaste. It is no kind of reflection on a woman's character to say that she has formed the closest intimacy with many persons; on the contrary, Nair women are proud of reckoning among their favoured lovers many Brahmans, rajas, or other persons of high birth. In consequence of this manner of propagating the species, no Nair knows his father, no father knows his son, and every man looks upon his sister's children as his heirs. He, indeed, looks upon them with the same fondness that fathers in other parts of the world have for their own children; and he would be considered as an unnatural monster were he to show such signs of grief at the death of a child, which, from long cohabitation and love with its mother, he might suppose to be his own, as he did at the death of a child of his sister. A man's mother manages his family, and after her death his eldest sister assumes the direction. Brothers almost always live under the same roof; but if one of the family separate from the rest, he is always accompanied by his favourite sister. Even cousins, to the most remote degree of kindred, in the female line, generally live together in great harmony; for in this part of the country, love, jealousy, or distrust never can disturb the peace of a Nair family. A man's moveable property, after his death, is divided equally among the sons and daughters of all his sisters. His land estate is managed by the eldest male of the family, but each individual has a right to a share of the income. In case of the eldest male being unable, from infirmity or incapacity, to manage the affairs of the family, the next in rank does it in the name of his senior. Under these social rules it is not easy to see the inducement to the Nair to marry. The Nair family is undivided, and by theory the ancestral

property is impartible, though it sometimes is divided by consent. The Nair people of the Malaya and Tulava countries are frequently educated, and are good accountants. They hold many public offices, and compete for office employments with the Brahmans. The Nairs are a good-sized, well-featured race, but rather dark. The Nairs of Malabar were formerly accustomed to duelling. The practice was called Ankam, but hired champions were often substituted.

Nair or Nayar is a title added to nearly all the names of the race, and it is, like Mister and Esquire, assumed as a birthright by any respectable member of the race who has no other. The Kiriyaithil, Valtā-Kaden, and Athi-Kuruthi also assume the title. The Kiriyaithil Nair, called also Kuruppu, Keimmal, and Menon, are the offspring of temple women by Brahmans. Men are not accustomed to cover the body above the waist; so also females when in the house, but when going out they cover the bosom with a piece of light white cloth, which is sometimes a costly article, having a border of gold thread. They wear many ornaments, and the hair done up in a kind of chignon on the left side of the head.

Picart quotes Oviedo as stating that the Nair women regard association with men to be an institution so holy that they believe virgins to be secluded from paradise; but this seems merely an excuse put forward by some one of the race who has been ashamed of this social custom. A Nair writer observes that the Teeyetee or Teeyeer women are notorious harlots, and become the concubines of strangers of any caste or religion, and this without the least prejudice to their own caste or any loss of esteem in society; on the other hand, any such act proved against any females of the other castes, subjects the person to excommunication from caste, banishment from society, and all religious advantages. The Teeyeer females of South Malabar, however, do not, so readily as those of the North, yield themselves to this practice.

Nair women of Malabar are said by Pietro Pellerino (II. letter vii.) 'De Malavaro poi solo sentii de notabile che le loro donne negli atti venerei per usanza far loro ricevuta, ed universale, non vogliono mais soggiacere agli uomini.'

These Nair customs are alluded to by Van Linchoten in the 16th, Fryer in the 17th, and Buchanan and Day in the 19th century. The Zamorin of Calicut is a Nair. Among the Limboo tribe in N.E. India, near Darjiling, the boys become the property of the father on his paying the mother a small sum of money when the child is named, and enters his father's tribe; girls remain with the mother, and belong to their mother's tribe. Among the Batta of Sumatra, the succession to the chiefships does not go, in the first instance, to the son of the deceased, but to the nephew, by a sister. The same rule, with respect to the property in general, prevails also amongst the Malays of that part of the island, and even in the neighbourhood of Padang.—*Tenment's Ceylon*; *As. Researches*; *Mateer's Travancore*; *Buchanan, Mysore*.

NAIRITTI or Niritti, the dread earth-goddess, of whom terror and deprecation were the only worship. She seems thrust by fear, rather than adopted, into the Vedic pantheon, the gopin of the Kali goddesses and Bhawani. A god named Nairitta, of a fierce and evil nature, is said to have

been worshipped by the Sakas. In Hindu mythology, Nairittā is the regent of the south quarter; a goblin; a rakshasa.

NAISHADHA-CHARITA or Naishadhya, a history written by Sri Harsha, of the life of Nala, king of Nishadha. It is one of the six Maha-Kavya of the Hindu literature. See Sri Harsha.

NAI VEDYA. HIND. Food offered to a Hindu god; a meat-offering, belonging to the puja or worship of a Hindu deity or idol. It is offered and distributed.

NAJAB-ud-DIN MUHAMMAD UMAR was a native of Samarcand, but his era is not precisely known. He wrote the *Asbab-wa-Ilamat* in Arabic, on the Causes, Signs, and Remedies of Disease. A commentary of it, also in Arabic, entitled *Sharh-ul-Asbab-wa-Ilamat*, was written by Nafis-bin-Iwaz, and dedicated to Timur's grandson, Sultan Ulugh Beg, who ruled at Samarcand from his early youth up to 1447, when he succeeded to the throne of his father Shah Rukh. A translation into Persian of the *Sharh-ul-Asbab* was made by Muhammad Akbar Arzani, physician to the emperor Aurangzeb (A.D. 1658-1707), to whom it was dedicated, and named the *Tibb-i-Akbari*.

NAJAFGARH, a village in Cawnpur district, North-Western Provinces, in lat. 26° 18' N., and long. 80° 36' E. The Najafgarh jhil is a large straggling lake or marsh in the Gurgaon and Delhi districts, lying between lat. 28° 26' 30" and 28° 34' N., and between long. 76° 56' and 77° 4' 30" E. Its various branches measure in all 46 miles, and when full in October it submerges about 27,000 acres.

NAJD, a province of Arabia.

NAJRAN, a town in the north of Yemen. It was once filled with Christians. Dzu Newas obtained possession of it by treachery, and gave it up to plunder. Large pits were dug in the neighbourhood, and filled with burning fuel, and all who refused to abjure their faith, amounting to many thousands, were committed to the flames.

NAKARAH. HIND. A drum, a kettle-drum. NAKARAH kharah, from NAKARAH, a small brazen-bodied drum, and KHANAH, a house, is generally used to express an assemblage of military or field musicians, whose instruments are loud, harsh, and disagreeable; long brazen trumpets, called KARENA, the sounds of which may be compared to the braying of asses, and two Surna, in appearance not unlike clarionets, but sending forth notes such as might be expected from two discordant bagpipes without a drone. The Sitari, the Kamancheh, and other string-instruments, produce with good voices in chamber concerts very soft and pleasing melody.—*Ouseley's Travels*.

NAKATIYA. SINGH. An astrologer. The practice of astrology at the present day in Ceylon, and the preparation of the ephemeris predicting the weather and other particulars of the forthcoming year, appears to have undergone little or no change since this custom of the inhabitants of India was described by Arrian and Strabo. But in latter times the Brahmans and the Buddhists have superadded to that occupation the casting of nativities and the composition of horoscopes for individuals, from which the Sophistæ described by Arrian abstained. It is practised alike by the highest and most humble castes of Singhalese and Buddhist, from the Vellala or agricultural aristocracy to the beaters of tom-toms, who have

thus acquired the title of Nakatiya or astrologers. The attendance on particular ceremonies, however, called Bali, which are connected with divination, belongs exclusively to the latter class. Amongst the Muhammadans of British India, astrology is almost unheard of, though they keep their calendar or Jantri, and the Hindu Joshi calculates the ephemeris. The Hindus also have their calendar or Panjangaṃ, but they all practise divination from books, of which the Chintamani pastakam is in use in the south of India.

NAKD. ARAB., HIND. Coin. Nakdi, ready money. It has various combinations.

NAKED. The practice of appearing naked is alluded to in Deut. xxviii. 48, in Job xxii. 6, and xxiv. 7, in Ezekiel xviii. 7 and 16, Matthew xxv. 36 and 44, 2 Corinthians xi. 27, and James ii. 15. The word Arom, rendered naked in the English Bible, in many places has the meaning in Job i. 21, Ecclesiastes v. 15, Micah i. 8, Amos ii. 16. In other places it means one who is ragged or poorly clad (John xxi. 7, Isaiah lviii. 7), which does not indeed differ from the familiar application of the word.

NAKHIS, religious ascetic mendicants amongst the Hindus, who live by begging. They resemble the Urdha-bahu and Akas-mukhi.

NAKHODA, from Nao, a vessel, and Khoda, lord and master, a ship captain.

NAKHONG-VAT or Nakon-Wat and Nakon-Hluang, two famous Buddhist temples in Cambodia. In Cambodia serpent-worship by the Buddhists reached its utmost splendour. The great temple of Nakon-Vat, wholly devoted to this cultus, is even in its ruins one of the noblest buildings in the world. First discovered in 1858 and 1860 by M. Mouhot, they have since been photographed by Mr. J. Thomson. It exhibits architecture of the utmost splendour, and of a style curiously resembling the Roman form of Doric. Six hundred feet square at the base, the building rises in the centre to the height of 180 feet, while every part is covered with carvings in stone, generally beautiful in design, and always admirably adapted to their situation. Every angle of the roof, every cornice, every entablature, bears the seven-headed serpent; and instead of the Greek cella, with the statue of the genius loci, there are courts containing tanks in which (we are compelled to infer) the living serpents dwelt and were adored. The date of this marvellous structure must be somewhere about the tenth century of our era, at all events before the fourteenth. When the Siamese conquered Cambodia, the cities of the serpent-worshippers were deserted, and Buddhism was established.

NAKIR and Munkir, according to Muhammadan belief, are two angels who question the dead on their interment as to their good and bad actions in life.

NAKL-us-SHAITAN, ARAB., or Devil's Date Palm, a dwarf-giant of palms, grows near Zanzibar. It has no trunk, but the midrib of each branch is as thick as a man's thigh. Eccentric in foliage and frondage, it projects over the waves its gracefully-curved arms, sometimes thirty and forty feet long.—*Black. Mag.*, March 1858.

NAKSHA-i-DILKHUSHA, by Babu Janmejaya Mitra, father of Babu Rajendralala Mitra; a list of Muhammadan poetesses.

NAKSHATRA. SANSK. Lunar asterisms,

mansions of the moon, formerly 27 in number. In Hindu mythology, they are fabled to be daughters of Dakṣa, a son of Brahma. In Hindu astrology, Sherring says the Nakshatra are regarded as heavenly bodies, which have great influence on mankind, not only at the time of their birth, but during the whole course of their life on earth. In astrology, that portion of a Nakshatra which is deemed unlucky is called Varjya, and the period of its duration is the Tyajya (wrongly spelt Thyajum and Thyagum). It is called Devi when it occurs at day time, and Ravi when at night. It is therefore an astrological element, but is nevertheless registered every day in the Hindu ephemerides, where the instant of its commencement is registered. Its mean duration is about 4 guddia (1h. 36' European time), so that the beginning being known, the end may be supported, with sufficient accuracy for practical purposes, without actual computation. Nakshatra-Mala, a garland of 27 pearls, the number of the Nakshatra or lunar mansions.—*Warren; Hind. Theat.* ii. 66.

NAKSH-BANDI. HIND. A sect of the Muhammadan fakirs or darvesh, characterized by carrying a lighted lamp in one hand, and going about singing verses in honour of the prophet, etc. They derive their institution and name from Khaja Baha-ul-Din of Naksh-band. See Khaja.

NAKSH-I-RUSTUM. On cliffs near Persepolis are the sculptured tombs of the Achæmenids and the monuments of the Sassanians, the latter being carved lower down on the same rocks. The rocks on which the bas-reliefs of Naksh-i-Rustum are sculptured bear the name of Koh-i-Husain. They form the continuation of the ridge lying south of the valley of Kamin, and serve for a northern boundary to the district of Hafrek. They are rugged cliffs of white and yellowish marble, with hardly any slope towards the plain. The more ancient sculptures are known as royal tombs. There are seven in number, of which four are at Naksh-i-Rustum, and three in the rocks of Rahmat, at Takht-i-Jamshid. The former are supposed to contain the four Persian monarchs who immediately followed Cyrus, namely, Cambyses, Darius I., Xerxes, and Artaxerxes I. The remaining three kings of the Achæmenid race are supposed to have been interred in the three other tombs in the rock of Rahmat, at Takht-i-Jamshid. Ardeshir (Artaxerxes), a grandson of Sassan, in three great battles overthrew the Parthian king Artabanus. Artabanus was slain, and the Arsacid empire, which had lasted 476 years, replaced by the Sassanide. Ardeshir caused a bas-relief to be sculptured on the rock at Naksh-i-Rustum, representing himself on horseback trampling on the prostrate figure of Artabanus, close to the portrait of Darius, his reputed ancestor. The inscription is trilateral, in the Pahlavi of E. and W. Iran, with a Greek translation. His son, Shahpur I. (A.D. 241-272), recorded his victory over the Romans on the same rock,—Shahpur on horseback, and Valerian kneeling before him as a suppliant. Shahpur I. has also left his effigy on the rock at Naksh-i-Rujab, near Persepolis, and in the cave at Hajiabad. Some of the monuments of Persepolis and other ancient sites in Persia were erected by the Achæmenian princes,—Darius, the son of Hystaspes, and his successors,—and the inscriptions on them were in three different systems of cuneiform writing. These were placed side by

side, and were addressed to the three chief populations of the Persian empire. One of them is in the ancient Persian language, and has 40 distinct characters.

The clue to the successful decipherment of the cuneiform inscriptions was discovered by Grote, and Rawlinson followed. Naksh-i-Rustum has an inscription by Darius giving a list of Persian satrapies. There is a long inscription of Darius on the rock of Behistun, which was discovered by Sir Henry Rawlinson.—*Baron C. A. De Bode's Travels in Luristan and Arabistan*, p. 97.

NAKUH. ARAB. A steep acclivity on a low sandstone hill, facing the coast of the Gulf of Suez. It is about 10 miles from Tor in Sinai, and is covered with coarse sand, the movement of which produces a hollow sound, at first like that of an Æolian harp; probably Nakus, in Arabic, a bell.—*Jam. Ed. Journ.*, 1830, p. 74.

NAKULA, the fourth of the Pandu princes, was the twin son of Madri, the second wife of Pandu. He was taught by Drona to train and manage horses, and became Master of the Horse of Virata. By his wife Karenu-mati, a princess of Chedi, he had a son named Nir-Amitra. He is fabled to have been begotten by the elder of the Aswini.—*Dowson*.

NAL. HIND. Arundo donax; also Amphidonax karka; also a hollow reed or cane, a tube, a pipe. The reeds used as pens or kalm, for writing in the Persian character. The best are red without, white within, and hard as stone. Nal also means a tube, whence the nal-gola, a kind of arquebuse; a ball propelled by whatever force from a tube; a term used by the old martial poets of India for a warlike engine long before gunpowder was known in Europe. A single-barrelled gun is ek-nali-ka-banduq, and do-nali-ka-banduq is a double-barrel. It also means a blow-pipe and a weaver's shuttle.—*Tod's Travels*, p. 25.

NALA, HIND., is a term applied to a mountain stream, from Nal, a defile, indicating that the course of a stream always presents some mode of penetrating into mountainous regions. Vulg. a nullah, a watercourse or stream; often a long inlet from one of the great rivers, and receiving the drainage of the country, but not having any origin in a spring or snow bed, as rivers and streams have; usually a rivulet, a channel cut in the soil by rain water or watercourse; an aqueduct.

NALLA and Damayanti, a story of ancient Hindu life, in the later Vedic period preceding Brahmanism. Nala inhabited Nishada, in the Bhil country, and Damayanti was the only daughter of the Vidarbha, in the modern Berar. The raja of Jeypore claims to have sprung from the ancient raja Nala of romantic memory. The story is told as an episode in the Mahabharata, and also in the Nalodaya, said to be by Kalidasa. Being a domestic story, it is better fitted than battles to the Hindu genius, and is a model of beautiful simplicity. Damayanti chose Nala at her Swayamvar, and they lived happily for some time, a son and daughter being born to them. But Nala was lured on to gamble with Pushkara, who used charmed dice, and Nala lost kingdom, wife, and children, and he wandered off in want, and at length forsook his wife. After various fortunes, he and Damayanti again met. He had learned how to play with dice, and challenged Pushkara,

from whom he recovered all he had lost, and Nala was restored to his kingdom.—*Dowson*.

NALA, a monkey chief in the service of Rama. He built the stone bridge called Rama or Nala-setu, from the Peninsula to Ceylon.—*Dowson*.

NALANDA, a celebrated Buddhist vihara or monastery, 7 miles N. of the old capital of Rajagriha, and 34 miles S. of Patna. During the first 500 years of the Christian era it was to Central India the depository of all true learning, from which it spread over all the other Buddhist lands. Hiwen Thsang was a student here for five years. Religion and philosophy were taught from 100 chairs, and in his time there were 10,000 priests and neophytes. It was the most famous Buddhist monastery in all India.—*Cunningham's Ancient Geog. of India*, p. 15; *Fergusson*, pp. 136, 137.

NALAYIRA PIRAPANTAM, 4000 stanzas by 7 Vaishnava Alvares, or chief devotees. The last part, Iyarpa, is said to have been written before the commencement of the Kali Yugam; the third part, 4900 years ago; the other two portions at a later period. No part is probably older than the 12th century. It is sometimes called the Tamil Veda. The work is divided into four books. Part i., Sacred Words, relates the story of Krishna's childhood, and contains hymns in praise of temples. Part ii., called the Great Sacred Words, is chiefly about Vaishnava temples. Part iii. is termed Words of the Sacred Mouth. The divinity of Vishnu, how to meditate on him, a message sent to God by a bird, duty of men to God, are some of the subjects. In part iii. is an invocation to Vishnu: 'Why dost thou not help me, thou, the Great One, my Lord, my Ambrosia, my Father, and my Ruler.' Part iv. contains prayers to Vishnu, meditations, etc.

NALDRUG, a fortress in the western part of the Hyderabad dominions, 27 miles E. from Sholapur. It is built on a bare knoll of greenstone rock, overlooking the ravine in which the river Bori runs southwards, and across which a bridge is thrown. It is supposed to have been built prior to the Chalukya rule, and to have belonged successively at times to the Bahmani, the Adal Shahi, and the Nizam Shahi dynasties, as now to the Asaf Jahi. In 1853 it was assigned for a short time to the British with the Raichore Doab.

NALLA. ANGLO-HIND. A bed of a rivulet, or the rivulet itself, the nala of the Urdu tongue. The Arabo-Spanish arroya, a word almost naturalized by the Anglo-Americans, exactly corresponds with the Italian fiumara and the Indian nullah.

NALLA MALLA, a chain of mountains, between lat. 14° 43' and 15° 14' N., long. 78° 48' and 78° 58' E., 16 miles broad, which separate the Ceded Districts from the littoral tracts bordering the Bay of Bengal. Twelve passes lead across them. Their highest points are situated between Cummum, in the Cuddapah district, and Amrabad, a Hyderabad town north of the Kistna, and vary in height from 2000 to 3055 feet above the level of the sea. Sandstone breccia is seen in all parts of the Nalla Malla mountains at various depths from the surface. In one instance, at a depth of 50 feet, the upper strata being sandstone, clay-slate, and slaty limestone. A stratum of breccia is 2 feet in thickness, and immediately above it lies a stratum of pudding-stone, composed of quartz and hornstone pebbles, cemented by calcareous clay and grains of sand. It is thought

likely that this stratum would be found productive in diamonds, and that the gems found at present in the bed of the Kistna are washed down from these, their native beds, during the rainy season.

At Banaganapilly, about 12 miles west of Nandial the breccia is found under a compact sandstone rock, differing in no respect from that which is found in other parts of the main range. It is composed of a beautiful mixture of red and yellow jasper, quartz, chalcedony, and hornstone of various colours, cemented together by a quartz paste. It passes into a pudding-stone composed of rounded pebbles of quartz hornstone, etc. The miners sift and examine the old rubbish of the mines, from an opinion which prevails among them, and which is also common to the searchers for diamonds in Hindustan, and to those on the banks of the Kistna, at Partaala, Malavelly, etc., viz. that the diamond is always growing, and that the chips and small pieces rejected by former searchers actually increase in size, and in process of time become large diamonds. The only rock of this formation in which the diamond is found is the sandstone breccia.

The wild races occupying the hills are the Chenchuar and Yanadi, but the ruins of extensive fortifications, stone wells, pagodas, the Purvut pagoda called Sri Sailam, with tanks and small fortresses, show that the range was formerly largely occupied. It is now very sickly, and wild beasts infest the jungles. The inner valleys contain a large number of lakes, or, as they are termed, Lankas. All these lankas or lakes are connected with fabulous tales. There are five plateaux on these hills. The highest peak is Gundla Brahmeshwaram, 3055 feet above sea-level, said to have been the seat of the great Muni (Saint) Jamadagni. The four principal passes are the Nandikanama, Jotikanama, Mantralamanakana, and Kortikanama.

NALODAYA, the rise of a lake, a poem supposed to be by Kalidasa; it relates the story of king Nala and his wife Damayanti.—D.

NAL-SAHIB. HIND. (Lit. Mr. Horse-shoe.) An ālam or standard of Muhammadans; a man who, in the Maharram festival, runs as fast as he can, carrying a horse-shoe standard, typical of the horse of Husain.

NAMA. HIND. A name; applied to the marks which the sects of Hindus place on their foreheads. The term is usually applied to the trident-shaped mark which the Vaishnava sect place on their foreheads. The Vaishnava sect have perpendicular lines, with or without a dot or circle between them, or have a chakra or discus, or a triangle, shield cone, heart-shaped, or any similar form having its apex pointed downwards. It is called Tirunama or holy name. It is a representation of the trident of Vishnu, closely resembling the Hebrew character Shin. It consists of three perpendicular lines, the central one red, the other two white. The name is given also to the white clay used for making the marks. The namaun mark of the Ramanuja sect consists of two perpendicular white lines, drawn from each root of the hair to the commencement of the eyebrow, and connected by a transverse streak across the root of the nose. In the centre is a perpendicular streak of red, made with red saunders or with roli, a preparation of turmeric

and lime. They have also patches of Gopi chandana, with a central red streak on the breast and each upper arm. The marks are supposed to represent the Sankh (shell), Chakra (discus), Gada (club), and Padma (lotus).

The Saiva sectarian marks are white horizontal lines, two or more, with or without a dot below or above the lines, or on the middle line, or with or without the oval or half oval, also by a triangle or any other pointed or arched form having its apex or convex ends upward.—*Birdwood's Arts; Wilson.*

NAMADUS, of Ptolemy, the Nerbadda river.

NAMAKARANA, SANSK., from Nama, a name, and Kree, to make, a Hindu ceremony of naming a child. On the 11th day, Punyaha-vachanam, or the purification rite for the mother and house, is performed. It is then that the child receives its name,—that of some one of its grand or great-grand parents,—by the father writing it three times, with a golden ring, in unhusked rice, spread on a plate. This is the Namakaranam, and is followed by the guests bestowing blessings on the young one as they scatter rice, coloured with turmeric, over it and the mother, who are seated in the midst of the assembly. The father then distributes money to the poor, and entertains relatives and friends. On this night, for the first time, the child is put into the cradle by the female guests, some of whom sing religious songs, while others rock the little one, and at the close the assembly are dismissed, after being presented with betel-nut, plantains, and boiled pigeon-pea, *Cajanus indicus*. The Namakaranam may be on the 10th, 11th, 12th, or 101st day.

NAMAK DALLA. HIND. A salt of soda, a natron salt from the waters of the lake of Lonar. It is used in dyeing, in medicine, and the arts.

NAMA KIRTANA. In the Hindu religion, the constant repetition of any of the names of the deity.

NAMA SIVAYA. SANSK. Salutation to Siva! is the five-lettered mantra or mystic prayer of the Saiva sect of Hindus. Namaskara is a respectful Hindu salutation to an idol or a Brahman. See Salutation.

NAMAZ. HIND., PERS. Prayer. The Muhammadan prayer time occurs five times daily. The Koran mentions four periods of prayer in Surat-ur-Rum (xxx. 17), viz. glorify God when it is evening (masa), and at morning (subh), and to him be praise in the heavens and in the earth; and at afternoon (ashr), and at noontide (zuhr); but masa is recognised as including sunset and after sunset. It is preceded by ablution (wazu), and summoned to by the Azan and Iqamat. Amongst the Muhammadans in India there are recognised—

Fajar-ki-namaz, morning prayer.

Zuhar-ki-namaz, mid-day prayer.

Asar-ki-namaz, afternoon prayer.

Maghrib-ki-namaz, sunset prayer.

Aysha-ki-namaz, evening prayer.

Namaz isbraq, at 7.30 A.M.

Namaz chasht, at 9 A.M.

Namaz tahajjoo, after 12 P.M.

Namaz taraweeh, after 8 A.M., a particular form of prayer not of divine command.

Namaz-i-janaza, the funeral service.

Namaz gah or Kedgah, place of public prayer.

In order to catch a blessing from heaven, at the close of the whole set, of their prayers, they

raise their hands, offer up their (manājāt) supplications, and draw the hands over their face in order to transfer it to every part of their body. The prayers of Muhammadans are a ritual that must be said in the Arabic, and admit of no change or variety.

'Ta dil bā mihnat dādīm,
Dar baħr-i-fikr uftādīm,
Chun dar namāz ištādīm,
Kuwať āmad ānderīm.'

—*Yule, Cathay*, ii. p. 499.

NAMBUDARI, commonly pronounced and written Namburi. MALEAL, TAM. A Brahman tribe of Malabar who make high claims to sanctity, look down on all other Brahmans, and are regarded by the other castes almost as sacred. They are said, however, to be descendants from a fisher race. According to the legend of the Hindus, the country of Kerala, which includes Malabar and Canara, was (together with the Konkan) miraculously gained from the sea by Parasu Rama, the conqueror of the Kshatriya, and as miraculously peopled by him with Brahmans who emigrated into this province, and introduced their religion amongst the inhabitants. The province was divided by them into 64 districts, which were governed by an ecclesiastical senate presided over by a Brahman every three years. But on the arrival of the Portuguese in 1498, they found a Hindu ruler, designated Zamorin, ruling over one of the most important of the principalities into which the country had been divided in the 9th century. Kerala is also called Parasu Ram Kshetrom, and is a long narrow strip of country stretching from Cape Comorin to Gokurnom. Of this, the tract of country below the ghats, from the river Canjarote pooya, the original southern boundary of Canara, to Travancore, inclusive, is now called Malealam or the Malabar coast. Kerala, from about B.C. 68 to A.D. 352, was ruled by 37 Perumal or viceroys from the Chera or Salem rulers, and after them by the ancestors of the present nominal raja.

None of them reside in South Travancore, which is only visited by them from time to time, for the celebration of religious festivals and ceremonies for the kings and temples. They are large landed proprietors, and to preserve their properties intact, it is usual only for the eldest son of a family to marry; the younger sons associate with the Nair women, and their daughters often remain unmarried. The landlords are designated Janami in the Malealam country, and their numbers are greatest in the fastnesses of the mountains.

A Namburi Brahman of Malabar is always the Rawaf or chief priest of the temple of Badarinath in the Mana pass of the Himalaya. When the Namburi Brahman women are guilty of connection with inferior castes, they are often sold by their relatives, and chiefly to the Muhammadan Mapilla. Under the terms head-price and breast-price, the princes of Malabar, in granting certain lands to the Christians in A.D. 816, allowed them the revenues derived from the sale of males and females for serious caste offences, a practice which the Namburi continue.—*Mateer's Travancore*.

NAMCUL, near Salem, a fortified detached hill with a pretty large town at the foot. The hill is steep but not high; its rocks are syenitic, in which white quartz and felspar prevail. In some

places it contains garnets in hornblende, and a greenstone which possesses the characters of felspar, and is composed of the same constituents; the latter compound seemed to prevail particularly in the lower country. The sand in the nullas and in some part of the road was mostly an aggregate of small garnets and hornblende.

NAMDAH. HIND., PERS. A thick felt used by the nomade races of Persia and Afghanistan for their tents; hence the term nomade. The Namdah and the Pankhi felts are also largely used as a sleeping rug, blankets, and for carpeting. See Nammad.

NAMES of European Christians, of the Rajputs, Mahrattas, and Brahmans of India, and of the Chinese, are hereditary. Those of the Rajputs are, however, so diffused as to be almost impossible to apply except in the most general way, for every one of this race knows whether he is of a Puar, a Chauhan, a Rahtor, Grahilot, Kachwaha, Yadu, Pramara, Parihara, or Chalukya family. In the south of India, Brahmans have confined themselves to intellectual employments, and every one knows the got or family to which he belongs; and among the Mahrattas, the Bhonsla, Gaekwar, Holkar, and Sindia are well-known patronymics. In China, the family names are only a little over 400, but they are carefully remembered, because that race are strictly exogamic, and do not marry women with their own family names. In all races, whether or not possessing family names, there are personal names applicable to the individual. Captain R. C. Temple has given notices of over 4000 names of the people of India, and they are largely those of their deities, and animals and plants familiar to them.

The habit of distinguishing families by epithets derived from objects in the animal or vegetable creation, has prevailed in every land, and many a name, which receives our homage from blending phonetic dignity with historical recollections, traces its origin to some humble and often ludicrous incident, as that watchword of chivalry, Plantagenet, derived from the lowly broom. The names of animals, plants, and things inanimate all furnish symbolic appellations. In Scripture we have the fly, the bee, the ram, to describe the princes of Egypt, Assyria, and Macedonia. Amongst the ancient as well as the present races in India, we have the snake, the horse, the monkey, the fox, the tortoise, the wolf, the boar, the nag or snake race being the Takshak, the rhinoceros, the tiger.

Before Islamism had thoroughly taken root amongst the Turks, it was by no means uncommon to designate grave and distinguished personages by the names of animals. Boghra, or more properly Bokra or Bokhra, means in Eastern Turkish a male camel. The Gurgiani tribe of the Brahui take their title from Gurg, the Persian for a wolf; the Numri or Lumri tribe for the fox; and Landgha, wolf, also gives its name. Among the Rajput clans are the Rahtor or the spine, the Kachwaha and Sessodia from the tortoise and hare. In India, the names of Muhammadan men are usually associated with some attribute of the Almighty, or with the name of some revered person.

Among Muhammadan men's names are Abbas, stern of countenance; Abd-u-Rahman, servant of the merciful; Abubakr, father of the maiden

(*Ayasha*); *Chengiz*, from *Zin* in *Moghul*, great, *gis* or *ghis*, the superlative—*Zingis* is applied to the ocean; *Eldoz* means star; *Fazil*, excellent; *Ghalib*, overcoming; *Haidar*, *Hirsuma*, *Asad*, and *Lais*, all mean lion; *Hamd*, part of an Arabic verb, meaning he did praise—from this all the names *Ahmad* and *Hamid*, the most praised, the same, *Mahmud* and *Muhammad*, praised; *Hashim*, a breaker, from *Hashm*, he broke; *Hasan*, beautiful; *Husain*, a little beauty; *Jafar*, a little stream; *Kasim*, divided; *Malik*, master; *Obeid* is the diminutive of *Abd*, servant. The titles *Sultan*, *Khan*, and *Agha Sultan* are of frequent occurrence. *Tahir*, ARAB., pure. The *Tahir* dynasty became independent in the 3d century of the *Hijira*. The founder was ambidexter, and styled *Zu-l-yamanin*, possessor of two right hands. *Takin* or *Taquin* in *Turki*, a warrior, as *Alpetgin*, whose slave *Sabaktagin* was father of *Mahmul*; *Tayib*, good, delicate; *Togrul*, TURKI, a falcon.

Among *Muhammadian* ladies' names are *Ak Begum*, whitelady; *Amina*, mother of *Mahomed*, means tranquillity; *Fakhr-un-Nissa*, glory of women. *Akbar's* mother's titular name was *Hazrat Mariam-Makani*, *Hamida Bana Begum*. *Khanum* for a *Moghul* lady, and *Begum*, a *Turki* lady, are the feminines of *Khan* and *Beg*; *Mahomed's* wives were *Khadija*, *Fatima*, *Ayasha*, *Aya*, *Miriam* or *Mary*, *Hind* or *Hinda*, *Zainab*, *Maimana*, *Safiya*. *Nur Banu*, lady of light; *Nur Mahal*, light of the palace; *Mihr*, the sun; *Rakya*, enchantment; *Shahar*, the moon; *Zainab*, ornament, the *Zenobia* of the Europeans; *Zobeida*, wife of *Harun-ur-Rashid*; *Zohra*, the blooming, a name of *Venus*.

Timur got his name in an unusual manner. He was born 25th *Shaban* A.H. 736 (7th May A.D. 1336), at a small village 40 miles to the south of *Samarcand* in *Kesh*, a province of Independent *Tartary*. He says that his father related to him the following circumstances connected with his name. 'Soon after your birth, I took your virtuous mother to pay our respects to the celebrated saint, *Shaikh Shams-ud-Din*. When we entered his apartment he was reading aloud the 67th chapter of the *Koran*, and was repeating this verse, "Are you sure that He who dwelleth in heaven will not cause the earth to swallow you up, and behold it shall shake (*tamuru*)."' The *Shaikh* then stopped, and said, We have named your son *Timur*.' There is a legend that his mother was with child before her marriage, and that she said to her father that while she was lying on her couch, a sunbeam covered her with a mantle of light, and at the same time seemed affectionately to caress her.

Amongst the servant and haram women of the *Muhammadians*, the usual names relate to some personal or mental peculiarity, as *Jamila*, *Kali*, *Nek-Kadam*, *Rahat Afza*, *Dil Aram*; or the name of some flower is given, as *Chambeli*, *Nargis*, *Gulab*, *Yasmin*.

Names of *Hindus* of the present day in the south of *India* are often those of some deity, of some beast, of some devout man, or relate to the complexion. Those of their wives are of some goddess, or of some flowering plant.

Amongst the *Hindus* of *Madras*, names common to men and women are *Adakalam*, *Arokeum*, *Chintadri*, *Chittaray*, *Kasi*, *Kuppu*, *Manikum*, *Paranjody*, *Pollyam*, *Ruthuum*, *Tulsi*, *Tunyassam*. Many of the *Hindu* men's names are those of

Hindu deities, as *Rama*, *Kistna*, *Ranga*, *Narain*, with the added title *Swami*.

Muhammadian ladies have evinced a wish to associate their names with inhabited places, and there is many a *Begum* *Pot* in *India*. The names also of distinguished officers of the *Indian Government* have been given to towns and hamlets. *Malcolm* *Pet*, a small village on the *Mahabaleswar Hills*, recalls the *Sir John Malcolm* who was Governor of *Bombay* in 1828. Another *Pet* or *town* is named in *Mysore* after *Mr. L. B. Bowring*, a former Chief Commissioner. *Colonel Dalton*, almost a model commissioner amongst wild tribes, gave his name to the headquarters of *Palaman*, a subdivision in the chief district of the *S.W. Agency*. *Sir Herbert Edwardes*, as well as that of the heir of *Ranjit Singh*, survive in the district of *Bannu*, at a place known variously as *Edwardesabad* and *Dhulip-nagar*. The fort there is associated with the maharaja, and the bazar with the accomplished soldier-civilian, who could win a battle with raw levies, write a good despatch, and sketch an oriental landscape. The market-place at *Etah*, *N.W. Provinces*, commemorates the name and services of *Mr. F. O. Mayne*. The first Political Agent in *Coorg* changed the name of a place from *Kushalnagara* to *Fraser* *Pet*. Some enterprising gentlemen, named the four *Morell* brothers, converted a jungly tract on the edge of the *Sunderbans* into a rice-growing plain, dotted with thriving villages, on the bank of a noble river, and the port is now known, locally and officially, as *Morellganj*. *Sir R. Montgomery*, Lieutenant-Governor of the *Panjab* and a member of the *Indian Council*, has a district named after him, with its administrative headquarters. It is usual with *Muhammadians* to apply some rhyming alliteration to their famous cities, and they add the words *Dar-ul-Karar* to *Kandahar*, and *Farkhunda* banyad to *Hyderabad*.

A tribe in *India* give daily names. If born on Sunday, the child is called *Adya*; on Monday, *Somburu*; on Tuesday, *Mangada*; on Wednesday, *Budu*; on Thursday, *Lakya*; on Friday, *Sukku*; and on Saturday, *Sanya*. These names of the days of the week are the same as those among the *Telugu* and *Uriya* people,—*Telugu* *Adivaram*, *Somavaram*, *Mangalavaram*, *Buduvaram*, *Lakshmanavaram*, *Sukravaram*, and *Sanivaram*. *Hindu* women will not pronounce their husband's names, and a *Muhammadian* will not summon his wife by her name. The Japanese wife calls her husband *Tei-shiu* (*Tei-shi*), meaning master.

In *Behar*, amongst all castes of *Hindus*, when a man's elder children die, he gives to subsequent offspring names signifying something unpleasant, and bores the septa of their noses.

In *Sumatra*, the father in many parts of the country, particularly in *Passumma*, is distinguished by the name of his first child, as *Pa-Ladin*, *Pa-Rindu* (*Pa* for *bapa*, signifying the father of), and loses, in this acquired, his own proper name. They have adopted this from the *Arabs*, who speak of a man and wife as the father and mother.—*Dowson's Ancient India*; *Elphinstone's History of India*; *Captain Temple*.

NAMI, a root of the form of a large potato, which grows in *Mindoro*, cultivated also in *Timor* and in the *Moluccas*. It is said to be the *manioc* or *cassava* of *South America*.

NAM-NAM. MALAY. An acid apple-like fruit

of the Malay Peninsula, growing on a small tree. —*M'Nair*, p. 63.

NAMO-NAMA. SANSK. ? MAHR. A respectful salutation to Brahmins.

NAMOONE-KULE, a mountain near Badulla in Ceylon, nearly 7000 feet high.

NAM-PHRIK, a sauce used by all classes in Siam; it is prepared by bruising a quantity of red pepper in a mortar, to which are added kapi (paste of shrimps or prawns), black pepper, garlic, and onions. These being thoroughly mixed, a small quantity of brine and citron juice is added. Ginger, tamarinds, and gourd seeds are also employed. The nam-phrik is a most appetite-exciting condiment. —*Bowring's Siam*, i. p. 108.

NAMRUD. 9 miles from Baghdad is the small Akarkouf; the ground around the ruined pile is called Tall Namrud by the Arabs, and by the Turks Namrud Tapassi. Both these terms mean the hill, not the tower, of Nimrud; and the term Akarkouf or Agargouf, given by the Arabs, is intended to signify the ground only around it.

NAMSANG, a rude pagan tribe on the hills of Assam, on the eastern frontier of the Mikir and Cachar. See Naga.

NAMZAD BAZI. PERS. PUSHTU. An Afghan custom of allowing an engaged couple to see each other.

NAN, a dependency of Siam, N.E. of Bangkok. Its capital is in a fertile valley. Lu, one of the Laos tribes, were often at war with Nan.

NANA FARNAVIS, a distinguished civil administrator of the Mahrattas, as Karkun of the Peshwa Madhu Rao, from 1769 till his death on 13th March 1800. He was present at the battle of Paniput, but was amongst the first of the fugitives from the field. See Baji Rao.

NANA ISHTAR of the Chaldees, the planet Venus, the Phœnician Astarte, the Hebrew Ashtoreth; in Babylonia, called Nana. She had many appellations, was seemingly the Nanæa of Maccabees, i. 13-15, and the Nani of the modern Syrians.

NANAK, the founder of the Sikh religion, is often styled Nanak Shah by the Sikh historians, who likewise designate him Baba Nanak, also Nanak Narinkar, or Nanak the Omnipotent. Nanak was a Hindu of the Kshatriya caste and Bedi tribe. He was born A.D. 1469, at the small village of Talwandi (since become a town, and now called Rayapur), on the banks of the Beas, in the district of Bhatti and province of Lahore. He was son of a grain factor at Talwandi, but in early life he deserted the humble shop of his father to seek, in study and retirement, a more genial occupation for a naturally reflective mind. The tenets of the Hindu and Muhammadan of that day alike dissatisfied him; and, after prolonged travel in search of truth, he returned to his family and passed his life in calling upon men to worship the one invisible God, to live virtuously, and to be tolerant to the failings of others. He began to teach A.D. 1490. For the gross polytheism of Hindu mythology, he substituted what may be defined a high philosophic deism, and succeeded in collecting together a large body of followers, whom he called Sikh or disciples; and these he organized under a theocratic form of polity, being himself recognised as their guru or teacher. For many years this rapidly-increasing body of con-

verts continued to lead a peaceful meditative life; absorbed in the study of their sacred book, the Grant'h, which contained all the recorded dogmas of their founder. They gradually spread over other parts of India, and a college of them existed so far south as Patna. But in the beginning of the 17th century, Govind Singh, the tenth guru, gave a new character to this religious community. He was a man of a naturally warlike spirit and ambitious views, and, thirsting to be revenged for domestic wrongs, soon converted the hitherto contemplative Sikhs into a band of warriors. These were the men who a century afterwards formed the flower of Ranjit Singh's army, and who presented so formidable an array against the British on the different battlefields during the Sutlej and Panjab campaigns. Nanak's biographical history is contained in the Janam-Sakhi. Stories of his miraculous gifts are still current; the tree where he lay concealed, the shops where he used to trade, the weights which he used, are still shown; travellers at Hasan Abdul may look on the impression of a hand in marble religiously believed to be his. Of his real goodness, of the purity of his motives, of the excellence of his life, and of the moral effect of his teaching, there can be no question. Nanak's view of the omnipresence of the Deity has been told in pointed terms. The Sikh reformer was reproved at Mecca by zealous Muhammadans for daring to turn his feet towards the Kaba or sanctuary where God is. 'Turn them if you can,' was the immediate answer, 'where God is not.' He died A.D. 1539.

Of the distinguishing features of their respective teachers, it may be said that Nanak disengaged his little society of worshippers from Hindu idolatry and Muhammadan superstition, and placed them free on a broad basis of religious and moral purity. Umar Das preserved the infant community from declining into a sect of quietists and ascetics. Arjun gave his increasing followers a written rule of conduct and a civil organization. Har Govind added the use of arms and a military system, and Govind Singh bestowed upon them a distinct political existence, and inspired them with the desire of being socially free and nationally independent.

Angad, the second guru, wrote some of the sacred books. He died A.D. 1552, followed by Umar Das, who died 1574.

The fourth guru, Ram Das, founded Amritsar. A piece of land was presented by Akbar to Ram Das, within which a pool or reservoir was dug, since well known as Amritsar, or the Pool of Immortality; but the temples and the surrounding huts were at first named Ram-Das-pur, from its founder. Arjun, his son and successor, was the first who really understood the pure doctrines of Nanak, and made Amritsar the seat of his followers. This Arjun was the fifth guru of the Sikhs, was born A.D. 1553. He compiled the Adi Grant'h in the Gurmukhi dialect. He died a prisoner at Lahore, 1606.

Har Govind, son of Arjun, the sixth guru of the Sikhs, was the first of them who became a military leader, as well as spiritual teacher. This impulse effectually removed the Sikhs from the possibility of becoming ascetic monks or mendicants. He became a follower of the emperor Jahangir. After a tumultuous life, during which

he was often engaged in repulsing attacks made upon him, he died at Keritpur on the Sutlej in A.D. 1645.

The ninth guru, Tegh Bahadur, was beheaded at Delhi in 1675.

Govind, son of Tegh Bahadur, was the tenth guru of the Sikhs. He introduced the Khalsa. He was born A.D. 1662, and was killed in his 48th year by two Pathans, in 1708, at Nander, on the left bank of the Godavery. A Sikh college is still kept up there. He remodelled the Sikh government. He composed the Grant'h in the Gurmukhi dialect, instituted the Singh initiations, and took service with the imperialists.

Banda, a Byragi ascetic, succeeded Govind as the guru of the Sikhs; he was a gloomy man, and in 1715 was tortured to death at Dehli, in the reign of Ferokhsir, son of Bahadur Shah. After which the direction of the Sikhs passed to the Akali and the confederate Jat sirdars. In 1764, they occupied Lahore, and from 1797 to 1839 were ruled by Ranjit Singh. Between 1708 and 1774, the country became infested by predatory bands, when Nan Singh extended his rule, and died in 1792. The most famed of the Sikhs, however, was Ranjit Singh, born 1780, who in 1805 established the Lahore independency; but the Sikh government, after his death, became torn by internal convulsions, was checked by Lord Hardinge, and finally closed in the time of Lord Dalhousie.

Of the Sikh religionists, the highest class are the Bedi. Like the Syud race, who claim a priority over all Muhammadans as being lineal descendants of Mahomed, a section of the Bedi rank first among the Sikh as being descended from Nanak, the founder of their sect. They are to be found in all parts of the Panjab: in the districts lying at the base of the Kangra Hills, at Gujranwalla in the middle of the Rechna Doab, at Gogaira on the Ravi, and at Shahpur on the Jhelum, and a few at Rawal Pindi. They are also occasionally to be met with to the south of the Sutlej. But their home and stronghold is at a town named after their founder, Derah Bales Nanak, on the Ravi, near Buttalla.

But there are Bedi still of that original tribe who are not descendants of the Guru, nor, indeed, Sikhs at all. The crime of infanticide among the descendants of Nanak has been so notorious, that a Bedi was generally known by the opprobrious title of Kori Mar, or daughter-slayer. With these men, pride, and pride alone, prompted to the crime. The fear of poverty arising from marriage expenditure would have little weight with them, as, unlike the impoverished Rajputs, they were generally men of wealth and affluence. They held fertile jaghirs, and their priestly coffers were well filled with the offerings and dues of their race. But in defence of the unnatural custom, which they did not attempt to deny, they, like the Rajput races, were ready with a traditional obligation laid upon them by an indignant ancestor. The story given by Major Herbert Edwardes is that when a bridegroom and his party were departing, the two sons of Dharm Chand accompanied them to give them rooksat. The weather was hot, the party out of temper, and they took a malicious pleasure in taking the young Bedi farther than etiquette required. When the lads returned home footsore, Dharm Chand asked if

the Khutra had not bid them to turn back sooner. The boys said 'No;' and it was then that the old man, indignant at all the insults which the bridal of his daughter had brought down upon him from an inferior class, laid the inhuman injunction on his descendants that in future 'no Bedi should let a daughter live.' The boys were horror-stricken at so unnatural a law, and with clasped hands represented to their father that to take the life of a child was one of the greatest sins in the Shastras. But Dharm Chand replied, 'that if the Bedi remained true to their faith, and abstained from lies and strong drink, Providence would reward them with none but male children, but at any rate let the burden of the crime be upon his neck, and no one else's.' And from that time forth Dharm Chand's head fell forward upon his chest, and he evermore walked as one who bore an awful weight upon his shoulders. With consciences thus relieved, the race of Bedi continued for 300 years to murder their infant daughters; and if any Bedi, out of natural feeling, preserved a girl, he was excommunicated by the rest, and treated as a common sweeper.

In 1794, a religious war was proclaimed against the Muhammadans of Maler Kotla by the Bedi Sahib Singh, the lineal descendant of Nanak. This man, who was half-fanatic and half-impostor, inflamed the Sikhs against the cow-killers of Maler Kotla, and a great many Sikh sirdars joined him. The nabab and his troops were defeated in a pitched battle, and compelled to flee to the capital, where they were closely besieged by the fanatical Bedi. His ally of Patiala sent troops to help him, and the Bedi was induced to withdraw across the Sutlej by the offer of a sum of money by the Patiala raja.—*MacGregor's Sikhs*, i. p. 44; *Major H. Edwardes' Jalandhar Report*; *Browne's Indian Infanticide*, p. 115; *Hist. of the Panjab*, i. p. 79.

NANAK SHAHI, a sect of religious devotees, followers of Nanak. The Nanak Shahi are classed under seven distinctions, all recognising Nanak as their primitive instructor, and all professing to follow his doctrines, but separated from each other by variations of practice, or by a distinct and peculiar teacher. In the west of the Peninsula, they are a low order of mendicants. About Benares they wear the ochrey red or gerua vastra cloth; they do not marry, but have no Naga or naked mendicants like the Udasi; their sacred book is the Grant'h of Nanak, but they will partake of food in the houses of all Hindus. Other followers of Nanak are the Udasi, the Nirmali, the Naga, Ganj Bakhshi, Ram Rayi, Sutra Shahi, and Govind Singhi.

NANAK-SHAHI, a rupee coin of the Sikh State; it had a pipal leaf on one side.

NANA RAO, or the Nana Sahib of Bithur, an adopted son of Baji Rao, the last Mahratta Peshwa. His name was Dandhu Punt. He was infamous for his cruel outrages at Cawnpur in 1857 against helpless men, women, and children. He joined early in the revolt of 1857-58. The three most notorious and distinguished characters among the rebels in 1857 were Tantia Topi, once a shroff in the Oudh bazar, and subsequently servant of Nana Rao at Bithur; Jwala Pershad, the Kotwal of Cawnpur, subsequently commander-in-chief of Nana Rao's army; and Khan Bahadur Khan of Bareilly, an old servant and pensioner of

the British Government, and long the successful leader of revolt in his district,—all three were hanged. Mumnu Khan, a low menial whom the passions of the Begum of Lucknow raised from the kennel to power, was transported to the Andamans. His paramour and her son Brijis Kadr, who claimed the throne of Oudh, went to Katurandu under the care of the Nepalese, where the Rani Chanda of Lahore, a Messalina of Indian history, had long found an asylum. Bala Rao, brother of Nana Rao; Azemullah, whom, once a khidmatgar, he sent to London as his agent, and who was his confidant throughout the revolt, and Nana Rao himself, are said to have died in the Dookurb valley of fever. Firoz Shah, the aspirant to the succession of Dehli, and the companion of Tantia Topi, was never captured. The three claimants for power in India were Nana Rao, Brijis Kadr, and Firoz Shah. The claim of the first was as Peshwa of the Mahrattas, that of the second was to Oudh, and of the third to Dehli.

NANAWATI, amongst the Afridi, an assembly to discuss public affairs.

NANCOWRY, one of the Nicobar Islands, in lat. 8° N.

NANDA, a person not of princely extraction, who successfully rebelled against Pinga-nakha, the last of the Sisunaga kings of Magadha, captured Patalipura, and ascended the throne B.C. 378. His younger brother? was dethroned and killed by Chandragupta, B.C. 313. Nanda and his sons ruled from B.C. 378 to 313.—*B. iii. p. 541.*

NANDA, the cow-keeper foster-father of Krishna, in whose house Krishna grew up. See Gokul.

NANDA DEVI, a snow-clad mountain peak in the Kamaon district of the N.W. Provinces, lat. 30° 22' N., and long. 80° 1' E. (Thornton); elevation above sea-level, 25,661 feet. It is one of the higher Himalayan summits. Almost conical in shape, the summit is inaccessible; but a religious fair is held every twelfth year at the highest point to which pilgrims can climb. The Hindus regard the cloud which usually rests on the peak as smoke from the kitchen of the goddess Nanda.—*Imp. Gaz.*

NANDAIR, lat. 19° 9' N., and long. 77° 20' E., in the Dekhan, on the left bank of the Godavery. Level of the Godavery here is 1152 feet. The mean height of the village, 1276 feet. There is a college of the Sikhs here.—*Cull.* See Nanak.

NANDAN SAR, in Kashmir, a small lake on the north side of the Pir Panjal range. The source of the Haripur river. It is a place of Hindu pilgrimage, and is in lat. 32° 37' N., and long. 74° 40' E. There are four other small lakes near.

NANDAVANAM. SANSK. The grove of Indra; in S. India, any garden.—*W.*

NANDGAON, a small Feudatory State in the Raipur district of the Central Provinces, with a population of 148,454. The chief is an ascetic Byragi, and the succession is by adoption. In 1877, the mahant had a supposed gross revenue of £9874, and paid tribute of £4600. His military force consisted of 7 elephants, 100 horses, 5 camels, and 500 infantry.—*Imp. Gaz.*

NANDI, a snow-white bull, the attendant and favourite vehicle (Vahan) of Siva. The Hindus make stone images of Nandi, some of them of huge size. The bull is represented on a pedestal,

crouching, in front of Siva temples, the head turned towards the small door of the shrine, or towards a lingam. Nandi is also called Salankayana; also Nandi-deha and Tandava-talika; also Basavi and Rishaba. The sacred bull of Mahadeva or Siva by some is described as the emblem of justice. In the Institutes of Menu, ch. 8, vol. 16, the divine form of justice is represented as Vrisha, or a bull; and the gods consider him who violates justice as a Vrishala, or one who slays a bull.

NANDIAL, a town in the Kurnool district, in lat. 15° 29' 30" N., and long. 78° 31' 40" E. There is a forest race in the district called Chenchwar. They speak Telugu, with a harsh and peculiar pronunciation. Brahmans say they formerly were shepherds of the Yerra Golla caste. They have large dogs, and a few are employed as hill police in the pass from the Cumbum to Badvail. The Nandial Chenchwar have no images. They are polygamists; they bury their dead, but sometimes burn, and carry the deceased's weapons to the grave. They have the spear, hatchet, the matchlock, and a bamboo bow and reed arrow tipped with iron. They look on weaving and other manufacturing arts with contempt, and they have in general only a rag for covering. They are patient and docile. It is suggested by Mr. Logan that the Chenchwar are a continuation of the wild forest Surah of the mountainous tracts farther north in the line of the Eastern Ghats. Vocabularies of six of the non-Aryan tongues—the Koni, Savara, Gadaba, Yerukala, Chentsu, and another—are given at p. 39 of 1856 vol. of Bengal As. Soc. Jour.—*Newbold in R. As. Soc. J., 1845; Logan in J. Ind. Arch.*

NANDIDRUG, a fortified hill with precipitous sides in the Kolar district of Mysore, 31 miles north of Bangalore, in lat. 13° 22' 17" N., and long. 77° 43' 38" E., with an elevation of 4810 feet above the sea. The plateau on the summit is extensive, and has a tank fed by perennial springs. A forest with an area of 7 square miles surrounds the mountains. It was taken by storm by the British army under Lord Cornwallis in 1791. At its N.E. base is the village of Nandi, where an annual cattle fair is held during the Siva ratri festival, and the best bullocks bred in the country are brought here for sale, to the number of 10,000. As much as £100 is sometimes offered for a pair of draught bullocks. The earliest fortifications were erected by the Chikballahpur chiefs; but the extensive works whose ruins now crown the summit, were constructed by Hyder Ali and Tipu Sultan. A cliff is still pointed out as Tipu's Drop, from which prisoners are said to have been hurled.

NANDINA DOMESTICA. *Thbg.* A tree of Japan, with red berries. It is called by the Chinese the Tein-chok or sacred bamboo. Large quantities of its branches are brought in from the country, and hawked about the streets. Each of these branches is crowned with a large bunch of red berries, not very unlike those of the holly, and, when contrasted with the dark shining leaves, are singularly ornamental. It is used chiefly in the decoration of altars, not only in the temples, but also in private dwellings and in boats,—for here every house and boat has its altar,—and hence the name of sacred bamboo which it bears.—*Fortune, p. 122; Roxb. ii. p. 184; Voigt, p. 27.*

NANDINI, in Hindu legend, a cow of plenty, belonging to the sage Vasishtha, said to have been born of Surabhi, the cow of plenty produced at the churning of the ocean.—*Dowson*.

NAND KUMAR, a wealthy banker of Calcutta, who held the office of foudjar of Hoogly in the reign of the Nawab Jafar Ali Khan. He was convicted of forgery by the British Court of Justice, and hanged at Calcutta 5th August 1775. His execution caused great grief to the Hindus.

NANDUS MARMORANTHUS and **N. Malabaricus** are fish of the rivers of Malabar, which build nests among the rushes at the margin of the water, deposit their eggs therein, and keep guard over them like the stickleback. Similarly the *Ophiocephalus striatus*, *O. marubius*, and *O. diplogramme* exhibit parental affection, swimming always close below their offspring, and attacking everything that comes near them. This they do till the fry are about three inches long, when they turn on and eat them themselves if they do not disperse. Some fish spawn in the sand, in the gravel, and even on rock. Others prey on their brethren, and others again are omnivorous, and none more so than the mahseer. Some fish seem to be almost entirely herbivorous, and they find an ample supply of fresh-water weeds on all the rocks in the rivers. Six different sorts of *Podostemaceæ* have been gathered in flower and seed, but the names of only two of them have been ascertained; these are *Moriopsis Hookeriana* and *Dalzellia pedunculosa*.—*Mr. Thomas*.

NANEH GHAT, in the Dekhan, has a cave chamber with an inscription in old Pali of date B.C. in the old Lat character. The inscription is in a chamber cut in the rock overlooking the Konkan in a pass which was evidently the high-road from Ajunta, Ellora, Junir to Kalian, and the cave temples in Salsette. The inscription relates to the Buddhist religion, and has the words Glory to Dharma, Indra, the Lords of Sakra, sun and moon, sanctified saints, Yama, Varuna, and spirits of the air, and Lokapala, or upholders of the world. It mentions the young prince Rakesa, the great warrior Tunaknyiko, prince Hakusaro, connected with the house of Amara Pala.

NANESHWER, a subordinate incarnation of Vishnu, described by Major Moor as having taken place at Alundy, near Poona, about, as some state, 700, or, according to others, 1200 years ago. He is stated to have been a religious ascetic, and to have been buried alive at Alundy, where his tomb is seen under a splendid temple, and where he yet appears (for, although buried, he is not dead) to pious, if at the same time wealthy, visitors.—*Cole. Myth. Hind.* p. 390.

NANG. PRER. Shame, honour. NangPukhtana, honour of a Pathan.

NANGAL, a village, generally inhabited by the Hindu Sad'h sect. Their body is left naked, except the lower part, which is covered by a piece of coarse cloth. They wear wooden shoes, and commonly do penance in the Himalaya mountains. Their hair is exceedingly long, and made brown by ashes.—*Mohun Lal's Travels*, 19.

NANGA PARBAT, a peak of a mountain in the W. Himalaya in Kashmir, rising 26,629 feet above the sea. It has a glacier on its lower slope.—*Drew, The Northern Barrier*.

NAN-HUA, CHUN, also called Nan-hwa-king,

the works of Chuang-tsze, a Chinese philosopher of the Taoist sect. Tsze means a venerable teacher, and Chuang-tsze was a follower of Laou-tsze, the founder of Taoism. He lived about 200 years after Laou-tsze.

NANING, an inland territory in the Malay Peninsula, in length about 40, and in breadth about 10 miles, to the north of the old Portuguese capital. It is an undulating district, composed of jungly knolls and round valleys, inhabited chiefly by Malays. They dwell in rudely built villages. Naning has a hot sulphur spring near Sabang, and yields tin.—*St. John's Archipelago*, ii. p. 91.

NANJA. TAM. Soil suited for rice cultivation, admitting of artificial irrigation, in contradistinction to punja.—*W.*

NANJANGUD, a town in Mysore, in lat. 12° 7' 20" N., and long. 76° 44' E., celebrated for the temple of Siva, under his name of Nanjand-eswara. It is 385 feet long by 160 feet broad, and supported by 147 columns. A car festival, held at the end of March, is attended by thousands. The name means the town of the swallows.—*Imp. Gaz.*

NANKA, a silk fabric worn by people of Kabul, etc.

NANKA ISLANDS are three in number, and are situated about four or five miles from the Banca shore, in the Straits of Banca. The tidal waves from the China and Java seas meet near these islands.—*Horsburgh*.

NANKAR. There were two kinds of recognised perquisites which landholders enjoyed in Oudh, and in most other parts of India, the nankar and the seer land. The nankar was a portion of the recognised rent-roll, acknowledged by the ruler to be due to the landholder for the risk, cost, and trouble of management, and for his perquisite as hereditary proprietor of the soil when the management is confided to another. It may be 10, 20, or 100 per cent. upon the rent-roll of the estate, which is recognised in the public accounts, as the holder happens to be an object of fear or of favour, or otherwise; and the real rent-roll may be more or less than that which is recognised in the public accounts. The seer lands are those which the landholders and their families till themselves, or by means of their servants or hired cultivators. Generally they are not entered at all in the rent-rolls, and when they are entered it is at less rates than are paid for the other lands. The difference between the no rent, or less rates, and the full rates, is part of their perquisites. These lands were generally shared out among the members of the family as hereditary possessions. Nankar is a compound Persian phrase of Nan, bread, and Kar, work, meaning support for service. Qu. Nankhwah, gratuity.—*Sleeman's Journey*, iii. pp. 23, 26; *Malcolm's Central India*, i. p. 8.

NANKEEN, also Nankin.

Nankings linnen, . . .	DUT.	Nanquino, . . .	IT.
Toile-de-nankin, . . .	FR.	Langking, . . .	MALAY.
Nanking, . . .	GR.	Nanquina, . . .	SR.

A Chinese cotton cloth, either of white, blue, or brownish-yellow colour. In point of strength and durability, it was unrivalled by any of the cotton fabrics of Europe. In some of the southern parts of Europe, the warmer parts of America, and the British settlements in Africa, it was formerly worn all the year round. This cloth was named from Nanking, where the reddish

threads were originally made. Nankins were also manufactured in Canton and other parts of the empire, but of an inferior quality.

NANKING, or, according to the court pronunciation, *Nan-chang*, is the Chinese name of the old metropolis of the empire, and means southern capital, just as *Pekin* (in the court pronunciation *Pei-ching*) means northern capital. *King*, in Chinese, means an imperial capital, as in *Pekin*, *Nanking*; *Tu*, in Chinese, is a court or imperial residence, as *Taitu*, *Shangtu*; *Fu*, in Chinese, is a city of the first class, or rather the department of which it is the head; *Cheu* is a city of the second class, or the district of which it is the head. The great porcelain tower at *Nanking*, in the province of *Kiang-nai*, was built by the emperor *Yong-lo*, and is called by the Chinese the temple of gratitude. The tower is erected upon a pile of bricks, and is formed upon a most substantial timber framework. It stands about 200 feet high, and is of an octagonal shape.—*Meqdon's Desultory Notes*, p. 10; *Yule's Cathay*, ii. p. 262; *Sirr's China and the Chinese*, ii. p. 426.

NANNAYA BHATTA or *Nanappa*, a Brahman, whose book is the oldest extant work on the Telugu grammar. He lived about the 12th century, in the reign of *Vishnu Vardhana*, a king of the *Kalinga* branch of the *Chalukya* family, who reigned at *Rajamundry*.

NAN-NUL, a High Tamil grammar of great excellence by *Pavananti*. There have been several editions printed, and it has been partly translated into English. The poetical vocabularies of the Tamil were all written by *Jaina* scholars, and must be placed a little later than the *Chintamani*, but yet anterior to the *Chola* conquest of the *Pandiya* country, which took place in the 11th century.

NAN-SHOK-THEE. *Burm.* To sniff up a scent. See *Kissing*.

NAO. *Hind.* A ship, a boat. *Nao-khuda*, a shipmaster; written *Nakhuda* and *Nacoda*.

NAO-AIT, a small unwarlike race, who, but for a slightly zanthous tinge, would have an almost English fairness. They are called *Nao-ait*, new-comers, and are said to have emigrated from Arabia about 300 years ago, and are now to be found in considerable numbers in Southern India. They are slender, fair men, with very fair, handsome women, and are engaged in civil avocations, never becoming soldiers. Their history is variously given. But the term is literally new-comers. They are supposed to be of Persian origin. But in the beginning of the 8th century, the governor of *Siak* drove some members of the house of *Haahim* into exile. They embarked with their families and effects, in the Persian Gulf, and landed some on the west side of the Peninsula of India, in the *Konkan*, and others to the eastward of *Cape Comorin*. The descendants of the former are the *Nao-aits*, and those of the latter the *Labbai*. The *Labbai* thus claim a common origin with the *Nao-aits*, though their colour and other physical features are not Persian but *Assyrian*. This supports the account of the *Nao-aits*, who maintain that the *Labbai* are descendants of their domestic slaves. By avoiding marriages with the *Indians*, and even with the highest *Muhammadian* families, the *Nao-aits* have preserved the original purity of their blood, and there are still some amongst them with com-

plexions as fair as those of Englishmen. They were famed, at the *Muhammadian* courts of the *Carnatic*, for uniting the qualities of the soldier and the gentleman. In the present day the *Nao-ait* are a class engaged in civil life. The *Nao-ait*, the *Labbai*, the *Moplah* of Southern India, the *Moormen* of Ceylon, and the Arab settlers of *Sumatra*, are direct from Arabia and Persia.

NAOBAT. *Hind., Pers.* A martial drum, on which the watches of the day are sounded. At native courts the use of it is a royal prerogative, and can only be assumed by permission of the sovereign. Rulers have a *Naobat-khana*, or guard-room, where the beaters stay and the drums are kept. See *Nakarah*.

NAO-ROZ. The *Parsees* of India have a New Year's day in March. The *Muhammadians* of Persia reckon the year from their *Nao-roz* or New Year's day, the day on which the sun enters *Aries*; but the *Muhammadians* of India follow the lunar months, and have no intercalary periods, so that their anniversaries and festivals make, continuously, circuits of the seasons. The *Hindus* of India follow the lunar months, but every twenty-fifth year insert an intercalary month to adjust.

NAPHTHA.

Neft,	ARAB.	Kesoso no abra, . . .	JAV.
Mang-ho-yu, . . .	CHIN.	Minak tanah, . . .	MALAY.
Bitume de judi, . .	FR.	Bhum tailum, . . .	SANSK.
Naphte,	"	Mun tylum, . . .	TAM.
Nuk-tel,	GUJ.,	Manti tylum, . . .	TEL.
Mitti-ka-tel, . . .	HIND.		

The term *naphtha* is usually limited to the thinner and purer varieties of rock oil, and petroleum to the darker and more viscid liquids. *Naphtha*, rock oil, or petroleum, are mixtures of various hydrocarbons; but in its purest form *naphtha* may be said to consist of $C_{10}H_{22}$, and yielding a vapour of the density of 2.8. Such a hydrocarbon is obtained as a natural product at *Baku* on the shores of the *Caspian*, where the soil is a clayey marl impregnated with *naphtha*. The pits are generally from 210 to 490 feet deep. The first 210 feet cost about £2 a foot to sink the tubes. Refiners buy crude oil at 2 copecs per 36 lbs. Locally refined oil or kerosene is sold at from 27 to 30 copecs per 36 lbs. At *St. Petersburg* it fetches from 1 rouble 80 copecs to 2 roubles the 36 lbs. The flaming soil or everlasting (as it is called) fire of *Baku* is the attraction to pilgrims, and is not less famous than its *naphtha* springs. When mixed with earth or ashes as fuel, *naphtha* is used both for fuel and light by the inhabitants of *Baku*, on the *Caspian*. The vapour is made to pass through earthen tubes, and is inflamed as it passes out, and used in cooking. *Naphtha* springs and rich mineral deposits have been discovered in the *Tekke* oasis, and the land is being rapidly purchased by mining speculators.

In the peninsula of *Abocheran*, on the western shore of the *Caspian*, *naphtha* rises through a marly soil in vapour, and is collected by sinking pits several yards in depth, into which the *naphtha* flows.

After the *Tigris* has succeeded in forcing its way through the *Hamrin* Hills, at a spot called *El-Fattha*, on the left bank, there is an abundant supply of sulphur, and, directly opposite, *naphtha* rises in great quantities from the bed of the river.

Naphtha is obtained in the *Bakhtiari* mountains, between *Shuster* and *Ram Hormus*; also near the

village of Dilaki in Fars. Major Porter saw a fountain of white naphtha at the foot of the mountains of Bakhtiari, half-way between the city of Shuster and the valley of Ram Hormuz. In Irak Arabi and the Lower Kurdistan, the most productive are in the vicinity of Kirkook, Mendali, and Hit, on the banks of the Euphrates.

The naphtha pits near Kifri, in the province of Baghdad, five or six in number, are in the pass through which the Ak-su penetrates to the plains. The hills are about a mile S.E. of the town of Tuzkurmatti, close to the gypsaceous hills of Kifri, and the pit, being in the bed of the torrent, is sometimes overflowed by it, and for a time, spoilt. The pit is about 15 feet deep, and, to the height of 10 feet, filled with water, on the surface of which black oil of naphtha floats, small air-bubbles continually rising to the surface. They skim off the naphtha, and ladle out the water into a channel, which distributes it into a set of oblong, shallow compartments, made in the gravel, where they allow it to crystallize, when it becomes very good salt, of a fine, white, brilliant grain, without any intermixture of bitterness. The Kifri naphtha supplies Baghdad; the Kirkook naphtha supplies Kurdistan.

Naphtha springs occur at Ayer-i-Nosh. Naphtha holding in solution a bituminous matter was obtained by Vigne near Deraband in the Suliman mountains. In Burma, on one of the branches of the Irawadi, there are upwards of 500 naphtha and petroleum wells, which afford annually 412,000 hogsheads. The Burma petroleum contains the compound paraffine. Petroleum is used as lamp-oil in Burma.

Naphtha may be obtained by the distillation of petroleum; it is also one of the results of the destructive distillation of coal; it often passes with the gas to the distant parts of the apparatus, and may be found in gas-meters and gas-meter tanks, and even in the mains. Carefully-rectified naphtha, whether from natural or artificial sources, appears to possess similar properties. The sp. gr. of the purest Persian and Italian naphtha is said to vary from '750 to '760, while that of coal naphtha may be '820, or higher. The odour of the natural naphtha is bituminous but not unpleasant; that of coal is penetrating and disagreeable. It does not congeal at zero. It ignites readily, and burns with a voluminous sooty flame. It is not soluble in water, although it communicates its odour to that fluid. It dissolves in absolute alcohol, in ether and the oils. The boiling-point varies in different specimens from 320° to 365°. Naphtha is employed for preserving the metals of the alkalies, potassium and sodium, which cannot be kept in contact with any substance containing oxygen. It is used for the purpose of diminishing the friction of machinery as a substitute for sperm oil. It dissolves the greater number of the essential oils and the resins, and is extensively used for dissolving caoutchouc to render cloth waterproof; with certain vegetable oils, it forms a good varnish, and for this purpose is sometimes substituted for turpentine.

NAPIER, LORD FRANCIS, of Merchistoun and Ettrick, was Governor of Madras from 1866 to 1871. He was Viceroy and Governor-General of India from the 23d February to the 3d May 1872.

NAPIER, ROBERT, Lord Napier of Magdala,

an officer of the Bengal Engineers, who rose to the rank of General, was engaged in the wars against the Sikhs, and was styled the Bayard of the Panjab. Subsequently he was engaged in the wars of the mutiny in 1857-58, in the second China war, was a member of the Viceroy's Council, was Commander-in-Chief of Bombay, and commanded the expedition to Abyssinia, into which he led successfully a mixed army of natives of India and Europeans through the mountains of Abyssinia to the storm of Magdala, the capital of the emperor Theodore of Abyssinia. Theodore destroyed himself at the gateway. The march to and from Magdala has not been surpassed since Hannibal crossed the Alps. Officiated as Viceroy and Governor-General from the 21st November to the 2d December 1863. As Military Engineer to the Board of Administration, Colonel Napier planned the defences of the Panjab frontier, and drew up schemes for bridging the Indus. Colonel Napier joined in more than one expedition against the border tribes. He was subsequently Governor of Gibraltar.

NAPIER, SIR CHARLES, an officer of the British army, who served in India under the E. I. Company. He commanded at the battles of Meane and Dubbee and Hyderabad, against great odds, and conquered Sind. His march to Imam-Ghar was one of the most remarkable military feats ever known to be performed. His victories added to British India the territory on both banks of the Indus river, from Sukkur to the sea, which was annexed on the 24th March 1843. He was a humorist, and it has been said reported his conquest of Sind with the single Latin word 'peccavi.' He was afterwards Commander-in-Chief of India, which office he resigned in consequence of differences with Lord Dalhousie. He died 29th August 1853. A statue has been erected at Trafalgar Square, London.

NAPIT. HIND. A barber, a shaver, who usually acts also as a surgeon; the village barber and barber-surgeon. Along with the original term, the dialects have various modifications of the word, as nai, HIND.; naida, nainda, napig, KARN.; nau and nhawi, MAHR.

NAR. TAM. Nara, MALEAL. Any fibre.

NARA, man; the original eternal man. Nara and Narayana, in Hindu legend, sons of Dharma and Ahimsa, who devoted themselves to ascetic exercises which alarmed the gods, and Indra sent Kama and Vasanta, or love and spring, with the nymphs of heaven, to inflame the sages with passion, and thus end their penance. Narayana observing the gambols of the party, suspected their purpose. He invited them to approach, and treated them with so much civility, that they thought their object was attained. The sage, however, taking up a flower-stalk, placed it on his thigh, when a beautiful nymph appeared, the superiority of whose charms covered the nymphs of heaven with shame. Narayana then told them to return to Indra, and bear him a proof he needed not the company of beauty, in the present he made him of the new-born nymph, who accompanied the Apsaras to Swarga, and was called Urvasi, from Uru, a thigh (Vamana Purana). A commentator on the drama says Nara and Narayana were avatars, descents, or incarnations of Arjuna and Krishna.—Wilson's *Hindu Theatre; The Hero and the Nymph*.

NARA.

NARA. **HIND.** The tape or band for the trousers; a rope used by tight-rope dancers.—*W.*

NARA, or **Kim-purusha.** **SANSK.** In Hindu mythology, beings with human bodies and the limbs of horses, created by Brahma,—the analogue of the Greek Centaur.

NARA. **HIND.** A sliding cord bridge in Kashmir.

NARA. In Sind, the Eastern Nara and the Western Nara are two large and important water channels. The former rises in the Bahawalpur State, and runs southwards through the Rohri, the Kbaipur, and the Thar and Parkar districts. It has been improved by a channel from the Indus. The Western Nara has its rise from the Indus, and, after a course of 138 miles to the south, falls into Lake Manchhar. In the valleys of the Eastern Nara are 400 lakes and several canals. After the opening of the supply channel at Rohri, much of the flood-water was expended in filling up the numerous depressions called dandhs or kolabs, which line the eastern bank of the Nara throughout the greater part of its course. They are very deep, and extend some miles into the desert. To prevent this supply from being lost, strong embankments were thrown across the feeding channels leading to the dandhs, and the water was thus forced into the plain. It was, however, in a few years found that this annual flooding caused great damage, by converting the country into a jungly swamp; and, to correct this, excavations were made in the bed of the Nara itself, so as to facilitate the flow of the water southwards.

NARADA PANCHA RUTRA, a ritualistic book of the Vaishnava sect.

NARADA PURANA and **Brihan Naradiya,** sectarian Vaishnava books, enjoining the doctrine of Bhakti or faith in Vishnu.—*Dowson.*

NARAINA, 40 miles from Jeypore, the chief site of the Dadu Panthi sect.

NARAIN RAO, Peshwa of the Mahrattas, was the third son of Balaji Rao Peshwa, and in November 1770 succeeded his brother Madhu Rao. On the afternoon of the 30th August 1773, Somer Singh and Muhammad Yusuf led a band of mutinous soldiers to the palace, and, aided by Truleea Powar, a domestic, gained admission to the private apartments, where Somer Singh and Truleea Powar assassinated Narain Rao. Several years afterwards, Truleea Powar was beheaded for the murder, by order of Nana Farnavis.

NARAKA, the Hindu Tartarus, the hell of the Hindus, the abode of the wicked. Menu enumerates 21 divisions or abodes, and the Vishnu Purana 28. They are said to be situated beneath the earth and beneath the waters. Below Naraka is Patala, a terrific region of deep gloom, fear, and great terror. Below Patala are Krimbhajana and Krimias.

NARAKAL, a small seaport town in the state of Cochin, in lat. 10° 2' 30" N., and long. 76° 12' E. It is sheltered by a mud bank, 2½ miles seaward, and 4 miles long, within which vessels can run in the worst weather.

NARAKARU, part of the inferior village servants of India; they are similar to the menials of the ballota system.

NARA-PARAMATMA. **SANSK.** The waters of the world were the first productions of God in creation.

NARAYANI.

NARAPATI, the Chola dynasty of Karnata, Dravira, and the southern portion of the Peninsula of India, embraced a period of 534 years, during which 27 rajas reigned, from A.D. 266 to A.D. 800. After the overthrow of the Narapati dynasty, Karnata and Dravira seem to have been separated from the southern districts, in which the Chera, Chola, and Pandava lines were at first united under one sovereignty. Thereafter, 13 maharajas of Madura, Tanjore, and Coimbatore reigned 239 years, after which follow the Belal rajas of the Karnata, and the petty polygar dynasties of Madura, etc.—*Prinsep*, p. 275.

NARA-SINGHA, or **Man-lion avatar** of Vishnu, in which he took the form of a monster to punish the wickedness of Hiranya-kasipa, a profane and unbelieving monarch, the brother of the gigantic demon mentioned in the third avatar, and his successor on the throne, who also refused to do homage to Vishnu. Quarrelling with his son Pralhad, the king boasted that he himself was Lord of the Universe, and asked wherein Vishnu was greater than himself. Pralhad replied that Vishnu was supreme over all, and was everywhere. Is he, cried Hiranya-kasipa, in this pillar? striking it at the same moment with his sceptre; if he be, let him appear. In an instant the magnificent column was rent in twain, and Vishnu, in the form of a man with the head of a lion, issued from it, and tore Hiranya-kasipa in pieces. Nara-singhi is a name of Lakshmi, as the sakti of Vishnu in the Nara-singh avatar.—*Coleman, Myth. Hind.* p. 390.

NARAYANA, the son of Nara, the original man, and often identified or coupled with Nara; also the creator Brahma; also, in Hindu belief, the Spirit of God, Brahm. By the Vaishnava sect, Narayana is identified with Vishnu, but in the Saiva theogony, Narayana and Siva coalesce. In the Ins. of Menu, c. l. v. 10, the waters are called Nara, because they were the first production of Nara, or the Supreme Spirit; and since they were his first ayana, or place of motion, he is thence named Narayana, or Moving on the Waters. The name is found for the first time in the Satapatha Brahmana. As commonly used in Southern India, it applies to Vishnu, and is that under which he was first worshipped. In Hindu mythology, the beverage of immortality drunk by the gods, Narayan's gem and other gifts to man, are fabled to have been produced by churning the ocean. Chitra-ratha describes in song how

'Whilom from the troubled main
The sov'reign elephant Airavan sprang;
The breathing shell, that peals of conquest rang;
The patient cow, whom none implores in vain;
The milk-white steed; the bow with deaf'ning clang;
The goddesses of beauty, wealth, and wine;
Flowers, that unfading shine;
Narayan's gem; the moonlight's tender languish;
Blue venom, source of anguish;
The solemn leech, slow moving o'er the strand,
A vase of long-sought Amrit in his hand.—
To soften human ills, dread Siva drank
The poisonous food that stain'd his azure neck;
The rest, thy mansions deck,
High Swerga, stor'd in many a blazing rank.'

—*Moor*, pp. 79, 399; *As. Res.* vii., Arts. viii. and ix., by *Mr. Colebrooke*; *Dowson*.

NARAYANI, a name usually applied to Lakshmi as the sakti of Vishnu, but may also be applied to Parvati and Saraswati. See Lakshmi; Sakti.

NARBADA, a river of India, which rises on the plateau of Amarkantak, and disembogues in the Gulf of Cambay. It is also written Nerbadda, and is the Namadus of Ptolemy and Namnadius of the Periplus. It rises on the Amarkantak Hill, lat. $22^{\circ} 41' N.$, long. $81^{\circ} 49' E.$, and, after a westward course of 800 miles, falls into the sea below Broach, in lat. $21^{\circ} 38' N.$, long. $72^{\circ} 30' E.$ Amarkantak is a massive flat-topped hill. All round lies a wild and desolate country; but Hindus have reared their temples in the middle of these solitudes, to guard the sources of the sacred river. The Narbada bubbles up gently in a small tank in one of the undulating glades on the summit of the mountain. Then, for about three miles, it meanders through green meadows, receiving the waters of countless springs, till it reaches the edge of the Amarkantak plateau, where it falls over the black basaltic cliff in a glistening cascade of 78 feet, called Kapila-Dhara.

From Haran Pal, or the Deer's Leap gorge, to the temple of Sulpani Mahadeva, a distance of some 70 miles, there occurs the main barrier of the Narbada. Here the Narbada displays all her terrors. Thereafter the Narbada enters on the rich plains of Broach, which border on the sea, and in this section it is navigated by country craft. Rising in the highest land of Central India, 5000 feet above the sea, and pursuing a serpentine westerly course for 750 miles through a hilly tract, which runs parallel to and borders closely both its banks, this river may be said to flow through a longitudinal cleft rather than a distinct valley, and to present the general characters of a mountain stream more than anything else. No great depth of water can ever be expected in it, from the nature of its tributaries, except in the monsoon; neither could it be retained, owing to the great declivity of the river bed, which from Jhansi Ghat, near Jubbulpur, to the sea, falls 1200 feet in 500 miles. The falls of Kapiladhara and Dudh-dhara are near its source, the former of 78 feet. The next is at Umari, in the Narsingpur district, and is about 10 feet. At Mandhar, 90 miles below Hoshangabad, and about 25 below Handia, there is a fall of 40 feet; at Dadri, near Punasa, 25 miles below Mandhar, there is another fall of 40 feet. The aboriginal races which prevail most among the agricultural population of the Narbada valley are the Gujar, the Jat, the Kaonra, the Kirar; the Kurmi are numerous; then follow the Lodhi, Chamar, Gond, Brahman, Ahir, Banya, Rajput, etc.

As a sacred river, the Narbada, in Hindu estimation, is only inferior to the Ganges. According to the *Rewa Purana*, the sanctity of the Ganges will cease in the Samvat year 1951 (A.D. 1895), while the purifying virtue of the Narbada will continue the same throughout all the ages of the world. So holy is the water, that the very pebbles in its bed are worn into the shape of the emblem of Siva. Few Hindus would dare to forswear themselves, standing in the Narbada with a garland of red flowers round the neck and some water in the right hand. The most meritorious act that a pilgrim can perform is to walk from the sea up to the source at Amarkantak, and then back along the opposite bank. This pilgrimage, called *parikram* or *pradakshana*, is chiefly undertaken by devotees from Gujerat and the Dekhan, and takes from one year to two years in accomplishment.

In Broach district the most sacred spots are—Sukaltirth, with its ancient banian tree; the site near Broach city where Raja Bali performed the ten-horse sacrifice; and the temples at Karod and Bhadbat. The coal-measures extend along the southern side of the valley, with some interruptions, from Baitul and Sewne to the neighbourhood of Jubbulpur. They consist of a series of slightly micaceous sandstones, shales, and coal-seams, and are quite destitute of iron ore. They form a long narrow strip resembling an old sea-beach, extending along the base of the Puchmurry Hills, which consist of a great thickness of conglomerates and sandstones, overlaid by an unconformable series of rocks. Limestone occurs everywhere, much of it crystalline. The iron ores of Baug and Ladgaon are brown iron ore and limonite; Burwa and the Muchuk river, brown iron ore and compact hematite; Changhur and the Powah river, compact hematite; Tendukera, calcareous hematite; Hutnapur, silicious hydrate, and micaceous specular ore occurs in Dhurumpura, Agaria, Partabgarh, and Jowli. In some of these sites, as in Tendukera, the ore has been worked for ages.—*Imp. Gaz.*; *J. II. Blackwell, Report to Government*, No. xlv., 1857.

NARCISSUS. From the habit of planting the narcissus upon tombs and shrines, it has acquired a certain sacredness of character. The Hindus have few tombs. They have shrines, however, many of which have been occupied by the Muhammadans. The narcissus is common in the Panjab. The narcissus flowers are of easy culture in a light soil; though they throw out a profusion of leaves, they rarely blossom.—*Ben. As. Soc. Jour.*, 1854; *Riddell*.

NARCOTICS in use among eastern nations are opium, bhang, madad, majum, ganja, charas. The use of these by orientals can be traced to times of high antiquity. Almost every race has its own peculiar intoxicant.

NARDOSTACHYS GRANDIFLORA has a glabrous stem, oblong glabrous leaves, with solitary terminal flowers. The capsule is downy, and the lobes of the calyx evidently denticulated. It is a native of Nepal and Kamaon.—*Lindley, Fl. Med.*; *Eng. Cyc.*

NARDOSTACHYS JATAMANSI. *W.*

Valeriana jatamansi, <i>Roeb.</i>	Nardus Indike, <i>Diode.</i>
Am-ul-tibi, . . . ARAB.	Bekh-i-sumbul, . . . PERS.
Sumbul, . . . ARAB., HIND.	Mu-i-giah, . . . "
Balchari, Jatamansi, "	

A dwarf herbaceous plant of Bengal, W. India, Nepal, the Panjab, Himalaya, up to 10,000 feet. Dr. Royle says that its hairy top-root is the spikenard of the ancients, mentioned in the Song of Solomon (Cant. i. 12) and in *Sicut Mark*, ch. xiv. 3, and John, ch. xiii. 3, Horace promised Virgil a whole cadus, about thirty quarts of wine, for a small onyx box of spikenard. Dioscorides says the ointment was a compound of anionum, balsamum, costus, myrrha, nardus, and schœnus, in nut oil. Other nards, Celtic, Mountain, and Syriac, are mentioned. The term nard was in use amongst the ancients to designate any Indian essence, as attar (otto) is now used. Dioscorides (I. i. c. 6) describes three kinds of nard, of the first and principal of which there are two varieties, Syriac and Indian; the latter was also called Gangites, from the river Ganges, near which, flowing by a mountain, it is produced. The

second kind is called Celtic, and the third is Mountain nard.—*Murray*.

NAREDA, in Hindu mythology, is a son of Brahma and Saraswati, usually regarded as one of the ten Rishi or Prajapati, first created by Brahma, and called his sons. He is described as a celebrated lawgiver, and as the inventor of the vina or lute, and is mentioned in Menu i. 34, 35, as one of the ten lords of created beings, eminent in holiness. In the Hindu plays Nareda usually acts as a kind of messenger of the gods, frequently going on errands. See Vikramorvasi, end of Act v.; and Sakuntala, end of Act vi. He is constantly employed in giving good counsel. It was Nareda who declares to king Harischandra the benefit of having a son. He is the analogue of the Grecian Orpheus. His musical talents were so great that he became presumptuous, and, emulating the divine strains of Krishna, he was punished by having his vina placed in the paws of a bear, whence it emitted sounds far sweeter than the minstrelsy of the mortified musician. In a picture of this joke, Krishna is forcing his reluctant friend to attend to his rough-visaged rival, who is ridiculously touching the chords of poor Nareda's vina, accompanied by a brother Bruin on the cymbals. To this day Nareda is represented in the Hindu Jatra under a long grizzled beard.—*Williams' Story of Nala*, p. 167; *Cole's Myth. Hind.* p. 7; *Tr. of Hind.* i. p. 269.

NAREGAMIA ALATA. *W. and A.*

Turroea alata, *Wight*. | *Nela-naregam*, *MALEAL*.

A pretty garden plant of the Travancore forests, used in medicine.

NARGIS. *HIND.* *Narcissus tazetta*. Honigberger states that the roots of this are officinal, being brought from Kashmir. *Nargis*, also *Gool-Nargis*, is the *Hemerocallis fulva*.—*Stewart, Panjab Plants*, p. 235.

NARI, *Nari-Khorsum*, *Gnari*, or *Mnah-ris*, the Tibetan names for the north-western part of Tibet, a Tibetan Chinese province connected with British India by the five Bhot passes in Garhwal and Kamaon. The Chinese viceroys are Tibetans, with Mangol or Turk troops, or perhaps Manchu Tartars, as they are said to use horseflesh, which no Tibetan and no Chinese would do. It is enormously lofty, utterly barren, and almost uninhabited, except on the lowest part of the ravine of the Indus.—*H. f. et T.* p. 225.

NARRI - KOMBOO. *SINGH*. A projecting process on the frontal bone of the jackal. It is called the jackal's horn, which Hindus say only grows on the head of the leader of the pack. The Singhalese and the Tamil races regard it as a talisman, and believe that its fortunate possessor can command by its instrumentality the realization of every wish, and that, if stolen or lost by him, it will invariably return of its own accord. It is the popular belief that the fortunate discoverer of a jackal's horn becomes thereby invincible in every law-suit, and must irresistibly triumph over every opponent. In the Museum of the College of Surgeons, London, is a cranium of a jackal which exhibits an osseous process on the super-occipital bone, and Sir J. E. Tennent placed along with it a specimen of the horny sheath, which was presented to him by Mr. Lavalliere, District Judge of Kandy.—*Tennent's Ceylon*, p. 36.

NARSAPUR, a seaport town at the extreme south of the Godavery district, situated on the

Vashista branch of the Godavery, about 6 miles from its mouth, in lat. 16° 26' 20" N., long. 81° 44' 30" E.

NARSIA, a Hindu deity, a contraction of Narasingha, the man-lion or fourth avatar of Vishnu.

NARSIPUR (known as *Tiruma-Kadalu*, or 'The most Holy Union'), a municipal village in Mysore district, Mysore, in lat. 12° 12' 40" N., and long. 76° 57' 21" E. A sacred spot, containing two ancient temples, one dedicated to Vishnu, under his name of Gunja Narasinha; the other situated between the junction of the two rivers, and dedicated to Agasteswara.—*Imp. Gaz.*

NASAFI, the surname of Najm-ud-Din Abu Hafs Umar-bin-Muhammad, died A.D. 1142, a celebrated doctor, and author of the *Akaid-al-Nasifi*, in Arabic, containing the fundamental principles of the Muhammadan religion. It is greatly esteemed by Muhammadans.

NASAFI or *Al-Nasafi*, commonly called *Hafiz-ud-Din al-Nasafi*, author of a law-book called *Wafi*, and of its commentary called *Kafi*. He is also the author of *Kauz-ul-Dakaik*. Obiit A.D. 1310.

NASALIS LARVATUS.

Kahan of . . BORNEO. | *Bangkatan of . LABUAN*.

The proboscis monkey of Labuan and Borneo. Its glossy coat is richly coloured. It is shy.

NASASALAR, Parsee corpse-bearers who can enter the Tower of Silence. They are unequalled. *Khandhia*, also, are corpse-bearers.

NASIK, a town near the source of the Godavery, supposed the ancient *Panchavati*. It is in lat. 19° 59' 45" N., long. 73° 49' 50" E. It gives its name to a revenue district of the Bombay Presidency of 8116 square miles, and in 1871 it had near a million souls, chiefly Hindus; the hill tribes being Bhil, Koli, Kathodi, Thakur, and Warli, mostly poor cultivators. Nasik is considered by Hindus a very holy town. It is built on the right bank of the Godavery, with about 27,070 inhabitants.

Nasik has a chaitya cave. An inscription over its gateway states it to have been the gift of a citizen. Another inscription on the pillars states it to have been excavated in honour of Badrakaraka, who was a king of the Sunga dynasty.

Nasik lies for the most part on a table-land, and for administrative purposes it is divided into 12 districts, while two great natural divisions mark off the cultivable from the uncultivable region. These latter are called *Dang* and *Desh*; and while the former is a bare and barren expanse of country, with tracts of absolute desert, the latter is thickly wooded in parts, and cultivated throughout by an industrious population. The Koli are more generally engaged in agriculture than the rest; the Bhil subsist chiefly by gathering and selling forest produce; the Thakur and Warli cultivate a little by the hoe. The Kathodi, or catechu makers, are the poorest.

Nasik diamond, taken in the Dekhan war, originally valued at £30,000, was sold to Lord Westminister for £7000.—*Fergusson*.

NASIKH, whose name was Shaikh Imam Bakhsh, was the son of a tent-maker, and was born at Faizabad. He never had a teacher, but was a genius, and wrote several books. *Dila Shair goi uthi Lucknow se*, gives the date of his death.

NASIRABAD, a cantonment in Ajmir-Mhairwara district, Rajputana, situated in lat. 26° 18' 45"

N., and long. 74° 47' E., on a bleak, open plain.—*Imp. Gaz.*

NASIRI, nomade Afghans, who occupy the Tohki and Hotuki countries in summer, and the Daman or skirts of the Suliman range in winter. In their migrations they appoint a Chahlwasti or captain of forty, and a Khan or director-general.

NASIR JUNG was the second son of Nizam-ul-Mulk, on whose death, in 1748, the son assumed the subahship of the Dekhan. He took part with Muhammad Ali and the British against Chanda Sahib and the French. After varied fortunes, he dwelt at Arcot in an indolent and voluptuous manner. In 1750, however, he again took the field against the French, but was killed by the Pathan nawab of Cuddapah, and three of the conspirators to his death fell in one day. His death gave great relief to Dupleix, Chanda Sahib, and Pondicherry.—*Orme*.

NASIR-ud-DIN-ABDALLAH-bin-OMAR-al-BAIZAVI. Baizavi was the literary takhallus. He died in the year 1286, Hijra 685, at Tabreez, but the date is disputed. His book is in Persian, entitled Nizam-ut-Tuarikh, which signifies the Order of Chronological Histories. He was a kazi or judge. He has treated of most of the Asian monarchs, and particularly of the ancient Moghuls.—*History of Genghiz Can*, p. 413. See Baizawi.

NASIR-ud-DIN MAHMUD, emperor of India from A.D. 1246 till February 1266. He followed Razia Begum, the daughter of Altamsh. His private life was that of a darvesh. He defrayed all his personal expenses by copying books; his fare was of the humblest description, and was cooked by the queen, to whom he allowed no female servant, and he had no concubines.—*Elph.* p. 327.

NASIR-ud-DIN, TAUSI, a famed philosopher and astronomer, who was employed by Hulaku, grandson of Chengiz Khan, to form the Il Khani tables; born at Taus A.D. 1201, died 1274. He was one of the best and certainly the most universal scholar that Persia ever produced. He was a voluminous writer. It was he who advised Hulaku to march against Baghdad.

NASR. ARAB. An eagle; an idol of the ancient Arabs. An nasr-u-tayir, the soaring eagle, a mystical name of the religion of the Ansariah, signifying mystically the sun, as the eagle is an emblem of the sun and light. The principal remaining part of the temple of the sun at Balbec contains tablets in the form of lozenges, on which is represented Jupiter sitting on his eagle. There is also the figure of a soaring bird sculptured on both the gates of the temple of the sun at Balbec and Palmyra, and its crooked beak, large claws, and the caduceus it bears, seem to represent an eagle, the soaring eagle consecrated to the sun.—*Catagogo*.

NASRANI, a term applied to the Christians of India and Persia, and used by the Muhammadans in a derogatory sense. It plural is Nassira, i.e. Nazarenes. It is prefixed to the names of the Nestorian Christians of Malabar.

NASTIKA. SANSK. An atheist, one who denies the authority of the Vedas.

NASTURTUM, the water-cress genus of plants, of the order Brassicaceæ. *N. officinale*, the Lutputiah of India, is cultivated in gardens. It has been found at various elevations in the Panjab, Himalaya, and Afghanistan.

NAT. BURM. Spirit. The Burmese and Kahhyens have many of these, all requiring to be propitiated on commencing or carrying on any undertaking or war, with offerings of animals, articles of food and clothing. The Nat are supposed to have been objects of Burmese worship in pre-Buddhistic times. They correspond to the devata of the Hindus, whose place they take in the Burman Buddhist system. The Burmese kings on dying are said to ascend to the Nat's village, Nat-yua-tsan-thee. Nat-tha-nay, fairy children. Nat-pan, a devil dance, literally possessing spirit. Nat-worshippers in Burma number 143,581.—*Yule*, p. 17.

NAT or Nut, in Bengal, a wandering tribe, who are dancers, actors, athletæ. They are called also Nut Sirki bash (dwellers under mats); those in the Dekhan are not distinguishable from Dher.

NATA. MAL., TAM., TEL. A country, relating to the country; used to form many compound words.—*Wils*.

NATA-KOTHIAR, a race in the south of the Peninsula who speak Tamil and follow Hinduism. They are large merchants, and all of them have the marked African protruding lips, and noses sharply cut at the forehead.

NATAL, on the coast of Africa, extends 125 miles between the Umsinkulu and the Tugela rivers. It was discovered and named by Vasco da Gama on Christmas day 1497. It has about 200 miles of sea-coast, and became a British colony on 12th May 1843.—*Findlay*.

NATH or Nat'ha. SANSK. Lord; hence Jaganatha, vernacularly Jagannath or Juggernath, lord of the world, a name especially applied to Krishna in the form in which he is worshipped in the temple of Jaganath at Puri in Orissa. A name borne by some classes of religious mendicants. See Kala-Priya-Nath.

NATHDWARA, a town in the Rajput State of Mewar. It is the most celebrated of the fanes of Krishna. Its etymology is the portal (Dwara) of the god (Nath), of the same import as his more ancient shrine of Dwaraka at the world's end. Nathdwara is 22 miles N.N.E. of Udaipur, on the right bank of the Banas. It owes its celebrity entirely to an image of Krishna, said to be the same that had been worshipped at Mathura ever since his deification, between 1100 and 1200 years before Christ. When Aurangzeb (Alamgir i.) endeavoured to root out the worship of Krishna at Mathura, rana Raj Singh of Udaipur obtained permission to bring the idol to Mewar, and it was escorted with vast pomp by the route of Kotah and Rampura; but in Mewar, at a place called Siarh in Delwara, the chariot wheel stuck fast, on which the rao of Delwara, one of the 16 great nobles of Mewar, declared it an omen of the god's wish to remain there, and conferred on Nath-ji all the lands of the village. A temple was erected for the idol, and around it has grown the present Nathdwara. Rich offerings are sent here from all parts of India. From the little ridge on the east, to the banks of the Banas on the west, precincts of the god, has always been a sanctuary, within which no blood can be shed, no arrest made, and the criminal is free from pursuit. Nathdwara is one of the most frequented places of pilgrimage, though it must want that attraction to the classical Hindu which the caves of Gaya, the shores of the distant Dwaraka, or the pastoral Vrii, the place

NATIVE.

of the nativity of Krishna, present to his imagination.—*Tod's Rajasthan*, i. p. 521.

NATIVE is the ordinary term by which the idol-worshipping people and Muhammadans of British India are at present known. The peoples to whom it is applied are only now fusing, under the firm sway of the British rule, and never before had, nor could have had, one common designation. Natives of India first sat on the petty jury on the 25th July 1828.

NATIVE BREAD of Australia, used by the aborigines, is *Mylitta Australis*. Native cat of Australia is the *Dasyurus viverrinus*. Native companion, the egret.

NATIVE STATES is a term in general use for designating the dominions ruled by princes in alliance with the British, and the term occasionally is loosely applied to the frontier states of Kashmir, Nepal, and Bhutan, as well as to the territories of the king of Burma. The principalities of all grades have already been detailed under the heading British India, and the following is a mere summary of the British Indian Provinces and of the states under Native rule:—

British Provinces.

	Sq. Miles.	Population.
Ajmir,	2,711	460,722
Assam,	46,341	4,881,426
Bengal,	193,198	69,536,861
Bombay,	124,122	16,464,414
Burma,	87,220	3,736,771
Central Provinces,	84,445	9,838,791
Coorg,	1,583	178,362
Madras,	141,001	31,170,631
N. W. Provinces,	106,111	44,107,869
Panjab,	106,632	18,850,437
	893,364	199,216,224

Native States.

Bombay Feudatory States, 73,753	6,941,249
Central Provinces do. do., 28,834	1,709,720
N. W. Provinces do. do., 5,125	741,750
Panjab do. do., 35,817	3,861,683
Baroda, 8,570	2,185,005
Central India, 75,079	9,261,907
Cochin, 1,361	600,278
Hyderabad, 81,807	9,845,594
Berar, 17,711	2,672,673
Mysore, 24,723	4,186,188
Rajputana, 129,750	10,268,392
Travancore, 6,730	2,401,158
	489,260
	64,675,597

The more important States of Central India are Bhopal, Dewas, Dhar, Gwalior, Indore, and Rewah. Those of Rajputana are Bhutpur, Bikanir, Bundi, Dholpur, Jeypore, Kerrowlee, Kishengarh, Kotah, Marwar, Mewar, Tonk, and Ulwar. In the Panjab are Busalir, Bahawalpur, Bilaspur, Kashmir, Jheend, Kapurthala, Keonthal, Maler Kotla, Nabha, Patiala, and Simmur.

In Bombay the more important are Baroda, Cambay, Cutch, Janjira, Khairpur, Kolhapur, Mahikanta, Rewakanta, and Sawuntwari.

In the Madras side, Banaganpilly, Cochin, Hyderabad, Mysore, Pudukottah, Sundur, Travancore.

The Kashmir ruler by treaty annually contributes six male and six female shawl goats, and three pairs of Kashmir shawls.

The maharaja maintains an army of 25,000 infantry, 1400 cavalry, and 160 guns. His dominions comprise the Kashmir valley, also Ladakh, and lead in the Gilgit valley towards

NATIVE STATES.

the Hindu Kush. The army is recruited among Dogra Rajputs and hillmen, and the artillery guns are of excellent native manufacture. It holds the salient angle of the British position with regard to Afghanistan and Central Asia.

The subjects of the Mahratta States of Baroda, Gwalior, and Indore are largely of the aboriginal non-Aryan races, who, at most, have only become semi-Hinduized. Their populations number 6,250,000; their State revenues, £3,800,000; and they maintain standing armies of a total of 59,000 men, and 115 guns.

The Hindu States, chiefly of Rajputana, Central India, with populations of 27,000,000, and revenue of £8,000,000, have armies with a total of 188,476 men, and 3096 guns.

Kashmir, with a population of 1,500,000, and a revenue of £600,000, has 27,000 men, and 160 guns.

The Muhammadan States of Hyderabad, Bhopal, etc., have a population of 14,300,000, a revenue of £5,240,000, and standing armies of 74,760 men, with 865 pieces of artillery.

Thus Feudatory India, with a total population of 54,675,697, with a revenue of £17,140,000, is maintaining armies of 349,835 men, and an artillery of 4237 guns.

N. W. Frontier.—Between British Indian territory and Afghanistan in the north, and British India and Baluchistan in the south, independent Pathan tribes hold the Sulaiman range from Abbotabad to Kach'li, and they number their fighting men at 150,000. But they have no cohesion; their government is essentially democratic.

Baluchistan has an estimated area of 80,000 square miles, and a population of 350,000, with an annual revenue of 5 lakhs of rupees, or £50,000. With this income, the Khan maintains 3000 armed men; and his principal dependent, the Jam of Las, has about 1000 more. Two regiments of the British Indian army have been raised from the Baluchistan tribes, and they make excellent soldiers.

Nepal is an Independent State ruling over numerous tribes, the more powerful being the dominant Gurkha, who in 1767 succeeded the Newar. At the close of a war with the British in 1814-15, Sir David Ochterlony made a treaty in which most of the Gurkha conquests and the Terai were ceded to the British. Since then there have been great dynastic convulsions, which ended in the minister Jung Bahadur becoming the ruler. His family are still dominant. The population is about 3 millions. Its army is about 100,000 strong, well armed, raised amongst the Gurkha tribes, with whom also the British India Government has formed a brigade of 5000 men.

Bhutan, geographically, is within the area of British India. It is an Independent State, under a ruler styled the Deb Raja, and in 1772 and 1866 has been at war with the Indian Government. On the first occasion, the plains of Koch-Bahar were successfully defended; and on the second, the fertile Dwar districts were ceded to the British, and the Bhutanese subjects are now restricted to the remote recesses of their mountainous region, where their immoral system, based on their practice of polyandry, has effectually prevented all national development. The Bhutan country is a fertile region in one-half of it, and in the other half contains some of the grandest scenery along the Himalaya.

Munipur, a Hill State on the north-east frontier of British India, lying south of Assam, and touching on its southern side territory, which, though nominally Burmese, is really inhabited by independent tribes. The maharaja rules from his capital of Imphal, 125,000 subjects, who occupy territory described as being 12,500 square miles. His revenue does not exceed 6 lakhs annually, but the people also give military service, and his army consists of 500 artillery, 400 cavalry, and 4400 infantry. On several occasions this force has co-operated with the British troops in repressing the turbulent tribes on the south, and the maharaja has been uniformly friendly.

NATRON, Kien, CHN., a native carbonate of soda, is brought into China from Tibet and Mongolia by way of Kalgan. The Chinese confuse natron and nitre, as other nations have often done. Natron is abundant in the vicinity of Ava, where it is used by the Burmese instead of soap, and they call it earth-soap. It occurs in the lake of Lunar.—*Smith; Mason.*

NATTAM, as in Alada-Nattam, is a Tamil term to designate a village inhabited by Sudra Hindus. It is also employed to denote the village lands on which the houses of the proprietors (mirasdar) are erected. It is distinguished from a Brahman village or Agrahara.

NATTAMAKAN, also Nattamakkal and Nattamar. TAM. A subdivision of the Vallala tribe, husbandmen, farmers.

NATURAL HISTORY is a description of the earth and of the plants and animals that have inhabited the earth, or are still dwellers therein. Its branches are geology, mineralogy, zoology, and botany. It is the province of geology to trace and correlate in historical sequence the physical changes that the earth's crust has undergone under the influence of volcanic forces, and the strains resulting from the contraction of the globe, as well as of the not less potent agency of water in its various phases of rain and river, sea and ice. Mineralogy deals with the nature and characteristics of the materials that undergo these changes. It classifies the separate substances that are mingled and massed together to form a rock, or that may be met with in an isolated condition in cavities or veins, or as transported bodies. Substances of this kind, which, when isolated, are homogeneous and definite in their composition and character, are minerals, and when submitted to analysis are shown by the chemist to be composed of elements, not mingled as are the minerals in a rock, but united according to the laws of chemical combination. The result of the study of rocks, and of their component minerals, has been to show that the great mass of the earth's crust is formed of aggregations of minerals belonging to a very small number of the types that have been determined by the mineralogist.

The geological formations in Peninsular India are arranged as—

Recent and post-tertiary.

Cenozoic—

Tertiary.

Mesozoic—

Dekhan trap series.

Marine cretaceous rocks.

Marine jurassic rocks.

Gondwana system.

Palæozoic.

Asioic—

Vindhyan series.

Transition or sub-metamorphic rocks.

Metamorphic or gneissic.

Minerals of the British Museum are arranged in five principal divisions:—

- I. Native elements.
- II. Compounds of metals, with
 - (i.) Elements of the arsenic group (the arsenoids, viz. bismuth, antimony, and arsenic).
 - (ii.) Elements of the sulphur group (the thionids, viz. tellurium, selenium, and sulphur).
 - (iii.) and (iv.) Elements of both the arsenic and sulphur groups.
- III. Compounds of metals with elements of the chlorine group (the halogen elements—iodine, bromine, chlorine, and fluorine).
- IV. Compounds of elements with oxygen.
- V. Organic compounds.

The biological sciences deal with the forms of life that have existed or still exist on the globe. As a whole, they are designated the Animal Kingdom. Its primary divisions, according to Huxley (1869), Herr Carus and Gerstaecker (1868), and British Museum (1883), have been given as under:—

Huxley.	Carus and Gerstaecker.	British Museum.
1. Protozoa. }	1. Protozoa.	1. Protozoa.
2. Infusoria. }		
3. Cœlenterata. }	2. Cœlenterata.	2. Cœlenterata.
4. Annuloida. }	3. Echinodermata.	3. Echinodermata.
5. Annulosa. }	4. Vermes.	4. Annulosa.
	5. Arthropoda.	5. Arthropoda.
6. Molluscoida. }	6. Mollusca.	6. Mollusca.
7. Mollusca. }	7. Mollusca.	
8. Vertebrata. }	8. Vertebrata.	7. Vertebrata.

The science of botany treats of everything relating to plants whether in a living or a fossil state. Since the 17th century, there have been several classifications proposed by eminent men, prominent among whom are Linnæus, who died 8th January 1778, whose arrangement was based on the sexes of plants. Subsequently, Antoine Laurent de Jussieu put forward a system, which is known as the natural classification; he died in 1836, but his son Adrian adopted his father's views. The next great botanist was De Candolle, whose system is a modification of that of Jussieu; and at the present day, De Candolle's *Prodromus* and Lindley's *Vegetable Kingdom* are largely accepted as guides in systematic botany, according to the natural system. The names of the classes, such as acrogen, endogen, exogen, are derived from Greek words.

Neither the Buddhist nor the Brahmanical nor the non-Aryan races of India have ever directed their attention to these sciences. The two known works of Arabia, Persia, and India are the *Ajaib-ul-Makhluqat wa Ghraib-ul-Maujudat*, the *Wonders of Creation and the Marvels of Things Existing*, written in Arabic by Zakariya - bin-Muhammad-bin-Mahmud, and which he completed A.D. 1363. In A.D. 1535-1557, in the reign of Ibrahim Adal Shah, it was translated into Persian, and in 1865 this was printed in lithograph. It was subsequently translated into Urdu, and printed by Maulana Muhammad Husain, and again in Persian in 1869. All the editions are illustrated, but the figures of monsters are imaginary. It is, however, a work of great merit for the 14th century. The other work is the *Jahan Nūmā*.

That the Hindus have no work on natural history is remarkable, seeing that they have before their eyes much to excite their curiosity, their wonder, and their fear; and while the stratified rocks of their country contain the remains of many huge extinct creatures of bygone ages, the elephant yet roams wild in the forest tracts, crocodiles infest the river banks, the lion, tiger, panther, leopard, wolf, and wild dog destroy great numbers of other creatures, and many human beings fall victims to the bites of poisonous snakes.

There are 18 known species of fossil elephants, 9 of which occur in India. The *Elephas ganesis* of the Siwalik Hills has tusks 10½ feet long. It is one of the largest of the fossil elephants. The great sabre-toothed tiger, *Machairodus latidens*, which has been found in Europe and S. America, occurs also in the Upper Miocene fresh-water limestones of the Siwalik Hills of India. The *Mastodon Perimensis* and extinct *Dinotherium* have been found in Europe and in Perim Island in the Gulf of Cambay. The three-toed miocene ancestor of the horse, one of the Ungulata or hoofed animals, *Hipparion* or *Hippotherium*, occurs fossil in the Siwalik Hills, and also extinct species of hippopotamus. Two species of pigs, now extinct, the *Sus giganteus* and *Sus hysudricus*, have been found in India; and extinct camels in the Siwalik.

The Siwalik Hills of India and the rocks of China have also furnished the huge *Sivatherium*; and from there also have been obtained two species of *Chalicotherium*, also fossil oxen and antelopes; while of fossil birds the Siwalik have furnished the *Struthio Asiaticus* and *Argala Falconeri*. Remains of many species of alligators, crocodiles, and gavials have been found in the tertiary rocks of India. The extinct *Colossochelys atlas*, from the Siwalik Hills, is one of several gigantic land tortoises which still inhabit islands of the Indian and Pacific Oceans. Of all these, Hindu literature makes no mention, though these religionists utilize, medicinally and in the arts, many minerals and plants and animals; and they reverence the cow, and even worship the Hanuman monkey, *Presbytis entellus*, the cobra snake, and the tulsi plant.

The Chinese students of natural history have been fairly successful in their botanical writings. They can show the Nangfang-tsao-mu-Chuang, by Ki-han, so early as the time of the Ts'in dynasty, A.D. 265-410; and since then, the Pun-tsao of Li Shi Chin, A.D. 1590, and many others, have appeared. But in other branches of natural science they entertain very childish notions. Remusat, writing in 1828, mentioned that one of the strangest errors among them relates to the transformation of beings into each other. This delusion has arisen from their following popular fallacies, and learned absurdities have been added to puerile prejudices. That which the vulgar have believed, the learned have attempted to explain. They point to fossils as proving that animate beings can become inanimate; they believe that ice, if kept long in the earth, becomes rock-crystal; that lead, in time, becomes cinnabar, tin, and silver; that in spring the rat changes to a quail, and in the eighth month, from a quail to a rat.

Even, however, to those who make natural

history a life's study, the multitude of current synonyms offer hindrances to the acquisition of all branches of this science. The Bengal leopard cat, for instance, has been called the *Felis Bengalensis* by Desmoulins, *F. Sumatrana* by Horsfield, the *F. Javanensis* by Jerdon and Horsfield, *F. minuta* by Temminck, *F. undulata* by Schinz, *F. Nepalensis* and *F. pardichrous* by Hodgson; and Dr. Gray gave it four names, *Leopardus Chinensis*, *L. Reevesii*, *L. Elliotti*, and *Chaus servalinus*.

Another instance, amongst birds, the bearded eagle, *Gypaetos barbatus*, has had twelve names given to it, in the genera *falco*, *gypaetos*, *phene*, and *vultur*. The *Scops aldrovandi*, *Ray*, has eleven synonyms, of the genera *ephaltes*, *otus*, *scops*, and *strix*. *Herodias bubulcus* has twelve specific synonyms. *Leptoptilos argala*, the great adjutant bird of Europeans, has six synonyms, of the genera *ardea*, *argala*, *cicones*, and *leptoptilos*.

Among reptiles, the *Crocodilus palustris* has five synonyms. *Euprepes rufescens*, the common Indian skink, has nine synonyms of the genera *euprepes*, *lacerta*, *plestodon*, *scincus*, and *tiliqua*. *Bungarus caeruleus* has eight.

In Pfeiffer's monograph of the Helicidae, a family containing 17 genera, no less than 380 generic synonyms are enumerated. One very common estuary shell of Europe has been named *Arenaria plana* by Megerle, *Lutraria compressa* by Lamarck, *Mactra Listeri* by many authors, *Mya Hispanica* by Chemnitz, *Scrobicularia piperata* by Gmelin, *Trigonella plana* by Da Costa, and *Venus borealis* by Pennant.

Similarly with most fishes. The small barbel of India has 11 synonyms.—*Barbus caudimarginatus*, *deliciosus*, *Duvaucellii*, *gardonides*, *sarana*, and *Russellii*, *Cyprinus kunnaroo*, *McClellandi*, and *sarana*, *Systomus chrysostomus* and *immaculatus*; and to curtail this part of the subject, it must suffice to say that the synonyms of plants are even more numerous.

This multiplication of names has often resulted from a genus or species being described by more than one person, in ignorance of each other's labours; but occasionally has occurred from the desire of giving new designations to old and familiar objects, and from fresh views as to classification. In botany, with the knowledge of new lands and their varied flora, the numbers of names may be expected to grow indefinitely. At the present time it may be thought a safe estimate to say that there are probably not less than half a million distinct species of vegetable organisms on land and in the water dispersed over the globe. The plants of India alone are reckoned at 12,000 to 13,000.

The oriental region, for its fauna, has been arranged into four sub-regions, viz. Hindustan, Ceylon and South India, the Himalayan or Indo-Chinese sub-region, and Indo-Malaya.

Mr. W. T. Blanford, in the Bengal Asiatic Society's Journal for 1881, has given the following estimate of the land and fresh-water animals in British India, Baluchistan, and the Mergui Archipelago:—

a. Vertebrata.		
405 Mammals, viz.—		Carnivora, 75
Quadrumania, 23		Cetacea, 23
Lemures, 3		Rodentia, 95
Cheiroptera, 80		Ungulata, 47
Insectivora, 55		Sirenia, 1
		Edentata, 3

NATURE-WORSHIP.

1681 Birds, viz.—		Tortricide, 2
149 Naptores—		Xenopeltide, 1
Accipitres, 97		Uropeltide, 41
Strigide, 52		Calamariide, 11
1182 Insectores, viz.—		Oligodontide, 27
Paittasi, 18		Colubride, 57
Picarie, 212		Homalopside, 10
Passeres, 952		Acontiphide, 1
72 Rases, viz.—		Psammophide, 3
Pteroclide, 8		Dendrophide, 5
Grallæ, 64		Dryophide, 8
135 Grallatores, viz.—		Dipsadide, 12
Otidide, 6		Lyodontide, 10
Limicolæ, 67		Amblycephalide, 5
Gruide, 4		Pythontide, 2
Ballide, 22		Eryotide, 2
Olopide, 6		Acrochordide, 1
Ardeide, 23		Elapide, 15
Tantalide, 1		Hydride, 30
Plataleide, 1		Crotalide, 17
Ibidide, 5		Viperide, 4
97 Natatores, viz.—		100? Amphibia.
Phonicopteride, 2		1357 Fishes, viz.—
Anseres, 36		Acanthopterygii, 705
Podicipide, 3		Acanthini, 43
Procellaride, 6		Physostomi, 485
Laride, 34		Lophobranchii, 15
Phaetonide, 3		Plectognathi, 44
Sulide, 3		Chondropterygii, 65
Attagenide, 2		
Pelacanide, 4		b. Invertebrata.
Graculide, 4		1000 Mollusca, viz.—
514 Reptiles, viz.—		Gasteropoda, 900
Chelonie, 54		Lamellibranchiata, 100
Crocodylia, 4		12,370 Arthropoda, viz.—
182 Lacertilia, viz.—		Insecta.
Varanide, 5		Coleoptera, 4780
Lacertide, 14		Hymenoptera, 850
Zonuride, 1		Lepidoptera, 4620
Scincide, 48		Diptera, 500
Gekkotide, 59		Rhynchota, ? 650
Agamide, 54		Neuroptera, 350
Chamaeleontide, 1		Myriopoda, 50
274 Ophidia, viz.—		Arachnida, 120
Typhlopide, 10		Crustacea, 100

—A. R. Wallace; W. T. Blanford.

NATURE-WORSHIP or Totemism is a cult in which natural objects, trees, lakes, stones, animals, etc., are worshipped. According to Bunsen, the earliest Bactrian faith was a pure nature-worship, as recorded in the Vedas. That was superseded by an ethical faith, when light and darkness, sunshine and storm, became represented by good and evil; but in the change, Zoroaster denotes the spirits of evil by the term Deva, common to the old Aryan divinities. The Bactrian religion continued unchanged amongst the Aryau emigrants until they reached the Panjab. Amongst Aryan Hindus, non-Aryans, and the Parsees, spirit-worship has almost displaced the nature-worship of the Vedas. But Hindus recognise in Prithivi, an earth-goddess, the mother of all beings. Her worship among the Asiatic races has been associated with sanguinary and licentious rites. It was to her that to the present day the Kaudhs of the Orissa mountains have been sacrificing the Meriah victims. In Phœnicia and the adjacent parts of Syria, the worship of Ashtoreth was from the first accompanied with licentious rites. As at Babylon, so in Phœnicia and Syria, —at Byblus, at Ascalon, at Aphaca, at Hierapolis, —the cult of the great nature-goddess tended to encourage dissoluteness in the relations between the sexes, and even to sanctify impurities of the most abominable description. Even in Africa, where an original severity of morals had prevailed, and Tanith had been worshipped as a virgin with martial attributes, and with severe,

NAUCLEA CADAMBA.

not licentious, rites, corruption gradually crept in; and by the time of Augustine the Carthaginian worship of the celestial goddess was characterized by the same impurity as that of Ashtoreth in Phœnicia and Syria. The Babylonian Anat or Nana, the Assyrian Istar, the Phœnician Astarte, the Cypriote Venus, and the Ephesian Artemis, are all developments of the Asiatic mother-goddess, whose worship spread from Babylon to Asia Minor and Greece. A bas-relief in a corridor at the ancient Carchemish, the capital of the Hittites, represents her worship. The figure is nude, full face, and winged, the feet close together, and the slender curves of the figure recall the terra-cotta votive figures of Anat found in the temples in Chaldaea. The hands support the breasts, as the nutrice of all created nature. The Ephesian Artemis represented the goddess many-breasted, as the mother of nature. Nannœa or Bibi Nani, the Babylonian Venus, has a statue shrine in the Hazara country on the top of a gigantic scarp rock, from the base of which flows the source of the Kurnuk. Her worship was introduced into Bactria from Syria, and is frequently indicated on Indo-Scythic coins.—*Rawlinson's Religions*, p. 175.

NAU. HIND., SANSK. Nine. Nau-naga, nine-headed snake. Nau, Nana, in Persian and Hindi, also mean 'new.'

NAU-AIT, in the south of India, a class of Muhammadans engaged in civil life, who came from Persia to Gujerat. The words mean newcomers. They are fair men.

NAUBAT. HIND., PERS. A drum, a kettle-drum.

NAUCLEA CADAMBA. Roxb.

Kaddam, . . BENG., HIND.	Halamba-gass, . . SINGH.
Mao-ka-noon, . . BURM.	Kadamba, TAM.
Kudda-valloo, . . CAN.	Kadapa, TEL.

This is a noble ornamental tree of British India and Burma. It is common in Ceylon up to an elevation of 2000 feet; it is found in Travancore and in the Dekhan. It has orange-coloured flowers, collected into heads the size of a small apple. Mukaranda says,—

'Thick on the hill's broad bosom the Kadamba
Shows bright with countless blossoms.'

It attains a height of 70 to 80 feet, with a girth of from 6 to 15 feet, and a stem of 32 feet to the nearest branch. It is made into boats; its flowers are offered to the Hindu deities; it is used for various kinds of furniture. The wood is of a deep yellow colour, but loose-grained. A cubic foot weighs 37 lbs. It sells in Burma at 8 annas per cubic foot, is suitable for furniture, and is used for building purposes. A spirit was formerly distilled from its fruit. According to Hindu mythology, this is one of the four shady trees that grow on Mount Meru, the others being the Eugenia, the Ficus Indica, and F. religiosa. The corollas of the flower are numerous, forming a large, perfectly globular, beautiful orange-coloured head, with the large white clubbed stigmas projecting. Delight, according to the Hindus, gives a bristly elevation to the down of the body, and is thus alluded to in the Hindu Theatre:—

'How chanced it
That one so free from passion should betray,
Without apparent cause, this agitation,
And blossom like the round Kadamba flower?'

—Roxb.; Thur.; Hindu Theatre; Beddome.

NAUCLEA COADUNATA. *Roxb.* Bakmee-gass, SINGH. Common in the warmer parts of Ceylon.—*Thw.*

NAUCLEA CORDIFOLIA. *Roxb.*

Keli kadam, . . .	BENG.	Adumbay, . . .	TAG.
H'nau, . . .	BURM.	Manja kadamba, . . .	TAM.
Hedde, Yettay-ga, . . .	CAN.	Bandaru, Daduga, . . .	TEL.
Hurdu, Haidu, . . .	HIND.	Paspu karami, . . .	TIB.
Kolong, . . .	SINGH.	Holondho, . . .	URIYA.

This large tree grows in the hot, drier parts of Ceylon, and abundantly in the mountainous districts of the Peninsula of India; it is a common tree in the coast forests of the Bombay Presidency, but never found inland. Its wood is light chestnut-coloured, firm, close-grained, and much in use for building, gun-stocks, and various other purposes; it requires to be kept dry, as it soon rots if exposed to wet. The leaves are used as fodder. At one time there were great forests of this tree in Kamaon, but these have been thinned. The tree rises with a clear stem of 30 to 40 feet, and has a girth of 6 to 12 feet. When growing singly it throws out branches close to the ground, and gives support to itself by projecting large buttresses from the bole.—*Drs. Roxb., Stewart, Cleghorn, Thw., Wight, Gibson.*

NAUCLEA PARVIFLORA. *Roxb.*

<i>N. orientalis, Gaertn.</i>	<i>Cephalanthus pilulifer, L.</i>
Kalham, . . .	BEAR, RAVI.
H'tein, . . .	BURM.
Hedu, Kongu, . . .	CAN.
Yetega, Yetegal, . . .	HIND.
Kyen, . . .	KAMAON.
Haidu, . . .	

This large tree is found in the Western and Northern Provinces of Ceylon, in the hot, drier parts of the island, where its close-grained hard timber is used for common house-building purposes. Dr. Wight says in Coimbatore it has a strong fine-grained timber, sustaining 400 lbs., and yielding considerable beams, dark-coloured, but that it soon rots if exposed to wet. From the fineness of its grain it seems well fitted for cabinet purposes, and has the advantage of being easily worked. On the western coast it is valued for yielding flooring planks, packing-boxes, etc. It is worshipped by the Oraons. In the Bombay Presidency the wood is valuable for gun-stocks, for flooring of houses, and house beams. It is found in the Nullamallay, and a cubic foot weighs 43 lbs. The leaves are given as fodder.—*Drs. Roxb., Wight, Gibson, Stewart, Cleghorn, Thw., Powell.*

NAUCLEA PEDUNCULARIS. *Wall. Cat.*

N. triflora, Moon's Cat. | *N. purpurea, Roxb., var.*

A moderate-sized tree of Ceylon in the Saffragam and contiguous districts, up to an elevation of 1000 feet, not uncommon in the Central Province.—*Thw. ii. p. 187.*

NAUCLEA ROTUNDIFOLIA. *Roxb.* A tree of Burma and the Andamans, the Bin-gah of the Burmese; its wood is close and even grained, moderately hard, and of a yellowish-brown colour.—*Gamble.*

NAUCLEA TUBULOSA. *Thw.* A small tree of Ceylon; one variety very abundant in the Kokuloorie. Another variety in the hot, drier parts of the island.—*Thw. Enum. Pl. Zeyl.*

NAUCLEA UNDULATA. *Wall.* Ma-u lettan, BURM. A soft, useless wood in British Burma, decays in less than a year. Breaking weight, 80 to 120 lbs. A cubic foot weighs 22 to

34 lbs. In a full-grown tree on good soil the average length of the trunk to the first branch is 100 feet, and average girth measured at 6 feet from the ground is 15 feet. It sells at 2 annas per cubic foot.—*Dr. Brandis, Cal. Cat. Ex. of 1862.*

NAUCRATES, the pilot-fish genus of fishes, belonging to the family Scombridae. The species *Naucrates ductor* usually accompanies the shark; its ordinary length is from 4 to 8 inches.

NAU RATN. HIND. Nine gems; an ornament worn on the arm, which indicates the only jewels that are esteemed as precious; they are, diamond, ruby, emerald, sapphire, topaz, pearls, coral, hyacinth, carbuncle. The others, and also the inferior gems, agates, bloodstone, etc., are mostly in use for signet rings, in the art of engraving which natives of India are extremely skilful.

Triratna, or triple gems, in the Buddhist religion are Buddha, Dharma, and the Church.

NAU RATN, nine learned men at the court of Vikrama, supposed to have been Vikramaditya, B.C. 56; their names were Amara Sinha, Dhau-wantari, Ghata-karpara, Kalidasa, Kshapanaka, Sanku, Varaha-mihira, Vararuchi, and Vetala-bhatta.—*Dowson.*

NAU RATRI, a Hindu festival lasting nine days, three of them in honour of Saraswati, and six for Siva's consort.

NAUTCH. HIND. A dance; a Hindustani nautch-girl does not dance like Taglioni and Cerito, but by a movement of her feet to music. The dancing of nautch-girls on public occasions is always decorous. The dances are, to a European, dreary; not only not graceful, but monotonous, wearisome.—*Kaye's Christianity in India, 309.*

NAUTILIDÆ, a family of cephalopodous molluscs. The genus *Nautilus* is the type of this family. There are three or four species in the seas of warm climates, especially those of Asia and Africa, and their islands, Amboyna, Zanzibar, and New Guinea, and the Pacific and Australian Oceans. G. Bennett mentions (pp. 374, 385) *N. macromphalus*, *N. pompilius*, and *N. umbilicus* in the seas of the Eastern Archipelago and S. Pacific. The shell of the pearly nautilus, *N. pompilius*, is heavy, dense, and chambered. It is made into cups and vases, and the natives of the New Hebrides and other groups eat the animal. Montgomery tells how,

'Light as a flake of foam upon the wind,
Keel upward, from the deep emerged a shell;
The native pilot of this little barque
Puts out a tier of ears on either side,
Spreads to the wafting breeze a two-fold sail,
And mounted up and glided down the billow.'

NAVA-KHANDA, or Nine-divisions, is the title of an account of India, which was first described by the astronomers Parasara and Varaha-Mihira, although it was probably older than their time, and was afterwards adopted by the authors of several of the Puranas. According to this arrangement, Panchala was the chief district of the central division, Magadha of the east, Kalinga of the south-east, Avanta of the south, Anarta of the south-west, Sindhu-Saurira of the west, Harahaura of the north-west, Madra of the north, and Kauninda of the north-east. The division of India into five great provinces would appear to have been the most popular one during the early centuries of the Christian era, as it was adopted by the Chinese Pilgrims, and from them by all

Chinese writers. According to the Vishnu Purana, the centre was occupied by the Kuru and Panchala; in the east was Kainarupa or Aesam; in the south were the Pandua, Kalinga, and Magadha; in the west were the Saurashtra, Sura, Abhira, Arbuda, Karusha, Malava, Sauvira, and Saindhava; and in the north the Huna, Salwa, Sakala, Rama, Ambashta, and Parasika.—*Cunningham's Ancient India*, p. 5.

NAVAKIRE, near Putoor, 21 miles from Jaffna, in Ceylon, has a remarkable well, which rises and falls once every twelve hours, and retains the same quantity of water however drawn. It is alluded to in Sinbad's travels.

NAVANDGARH or Naondgarh is a ruined fort from 250 to 300 feet square at top, and 80 feet in height. It is situated close to the large village of Lauriya, 15 miles to the N.N.W. of Bettia, and 10 miles from the nearest point of the Gandak river. The ancient remains consist of a handsome stone pillar, surmounted by a lion, and inscribed with Asoka's edicts, and of three rows of earthen barrows or conical mounds of earth, of which two rows lie from north to south, and the third from east to west. The stupas usually met with are built either of stone or of brick; but the earliest stupas were mere mounds of earth, of which these are the most remarkable specimens that General Cunningham had seen. He believes that they are the sepulchral monuments of the early kings of the country prior to the rise of Buddhism, and that their date may be assumed as ranging from 600 to 1500 B.C. Every one of these barrows is called simply 'bhisa' or mound, but the whole are said to have been the kots or fortified dwellings of the ministers and nobles of Raja Uttanpat, while the fort of Navandgarh was the king's own residence.—*Cunningham's An. Geog.* p. 448.

NAVARATN, a nine-pinnated Hindu temple.

NAVARETTE. Father Navarette, a Spanish Dominican, who visited the east about the middle of the 17th century, and left an elaborate account of his pilgrimage. He was sent out by his order in 1646 to control its missions, which were then very extensive in China and Manila. He taught for some time in the College of St. Thomas at Manila, but, finding that the field was too limited for his missionary zeal, he passed over to the mainland, and applied himself with great success to the study of Chinese, and to the mastery of the Confucian religion. His *Account of China, Historical, Political, Moral, and Religious*, which was translated into English in the beginning of the 18th century, displays a surprising mastery of the history and religion of the Chinese. An important part of the volume is devoted to the discussion of the controversial points debated by the Catholic missionaries and the Chinese literati. On his return to Europe in 1673, Navarette was well received at Rome, and his views of the Chinese disputes were adopted by the Pope. On his way to Europe he landed at Madras, about the year 1669-70, and visited the shrines at the Little Mount and St. Thomas Mount, the Luz and St. Thomé.

NAVASHT. PERS. Writing. Navasht-wakhand, reading and writing. Khush Navis, an elegant writer.

NAVNE. HIND. A jar in which rose-water is held. The rose oil or atr (otto) rises to the top, and is skimmed off.

NAVY. During the rule of the English East India Company, the first application of ships in war was to suppress piracy along the coast of Malabar. The fleet was named the Bombay Marine, but about 1833 was changed to the Indian Navy. In 1850 the fleet consisted of 32 steam vessels, with 72 guns; also of 14 sailing vessels, with crews numbering 737, and 89 guns. This navy was abolished about the year 1860, but was re-established in 1884 in a modified form.

NAWAB. ARAB. Plural of Naib, a sovereign, a viceroy, corruptly Nabob; also the highest honorary title under a Muhammadan sovereign in India. The Muhammadan titular distinctions are Bahadur, Khan, Dowla, Umra, Jah, Nawab. The emperors of Delhi granted this title to the viceroys of the empire, these viceroys again to their Muhammadan officers. It was a prefix to the names or other titles. The nawabs of the Carnatic granted the title to the female members of their families, and the successive Begums ruling at Bhopal have assumed it.

NAWAB-NAZIM, the title of the descendant of Mir Jafar, held in succession until Syud Mansur Ali retired from the position in 1883, and renounced all rights in consideration of an annual stipend of £10,000, the payment to him of 10 lakhs of rupees in settlement of various claims, and a suitable provision for his four children born in England. The title of nawab of Murshidabad was conferred on the eldest son, and the title of Nawab-Nazim became extinct.

NAWANAGAR, a Native State on the southern shore of the Gulf of Cutch, with an area of 3395 square miles. Its ruler, the Jam, is a Jhareja Rajput. Until the year 1812 the Jhareja race were notoriously addicted to killing their female children. Nawanagar is a flourishing town, in lat. 22° 26' 30" N., and long. 70° 16' 30" E. North of the town are some beds of pearl oysters. The Jharejas entered Kattyawar from Cutch, and dispossessed the ancient family of Jetwas (Parbandar) then established at Ghumli. It is said that Nawanagar was founded in 1442. The Muhammadans called it Islamnagar, but the Jams have restored the original name. The Jams are of the same family as the Raos of Cutch. The chief of Dhrol State claims to be descended from a brother of Jam Rawal, founder of the Nawanagar line; and Rajkot is also an offshoot from this state.—*Imp. Gaz.*

NAWARA, written Nowarrah, a large boat, a barge, a flotilla.—*W.*

NAWERA ELLIA, in lat. 7° 3' N., and long. 81° 52' E., a sanatorium in the interior of Ceylon.

NAYADI, corruptly Naiade. MAL. A low caste tribe, found only in the northern parts of Cochin. They are the most degraded of all the low tribes. The many low castes of Travancore are Parayan or Pariah, labourers and basket-makers; the Pulayan, slave labourers; the Nayadi, beggars; Ulladan, woodcutters; and, of the hills, the Vedan; Kaniyan, hunters; Kuruban or Kuravan or Kurumban; and Mala Arayan, hill cultivators.—*Mateer's Travancore*, p. 82.

NAYAKA. TEL. This is an honorific appellation used variously amongst some of the races in the south of India, under the pronunciations Naik, Naikan, and in the plural Naidu. It is in use in the native army of British India as the designation of a non-commissioned officer, equivalent to a corporal.

Amongst the people speaking Telugu it is a title of several hill chiefs, and is applied to a militia holding lands on military tenure. A Naik dynasty ruled in Tanjore immediately prior to the Maharrattas. The Bhil chieftains have this title.

NAYUTA, or Munja, i.e. presents carried in state, a Muhammadan ceremony.

NAZARETH, a small village of Palestine, 50 miles from Jerusalem, in a valley of the same name. Its population is about 3000.—*Catagago*.

NAZARITE. Numbers vi. 18: 'The Nazarite shall shave the head.' The Hindus, after a vow, cease to cut their hair during the term of the vow: at the expiration of which time they shave it off at the place where the vow was made. It is a very ancient form of votive offering. It is uncertain (Acts xviii. 18; Romans xvi. 1) whether Paul or Aquila, or both, shaved their heads at Cenchrea. It is probable that Paul had become a Nazareus votivus, and consequently had bound himself to serve the law of the Nazarites for a certain time. The Nazaraei votivi (Numbers vi.) were required to abstain from wine, grapes, and all inebriating liquors during the time of their separation. They were also to let their hair grow without cutting till the days of their vow were fulfilled; then it was to be shaved off, and the appointed sacrifice to be offered in the temple. Consecrating the hair, in times of danger, etc., to the heathen divinities, Lucian represents as of frequent occurrence, and he himself had complied with the custom. The emperor Nero is said, by Suetonius, to have cut off his first beard, and to have devoted it to Jupiter Capitolinus, placing it in a golden box, set with jewels. Nazarism was partly a religious institution, and partly civil and prudential. Its laws were promotive of the strictest sanctity, and calculated to preserve the health, sobriety, and temperance of the community. Hence we read, 'Her Nazarites were purer than snow, they were whiter than milk.' (Lamentations iv. 7.) Samson, Samuel, John the Baptist, and, according to the rabbins, Absalom, were Nazarites, and Joseph is said to have been Nazir echaiv, which we translate 'separated from his brethren,' but which the Vulgate renders 'Nazaraei inter fratres suos.' Persons recovering from sickness, or preserved from danger, frequently took upon them the vow. At the present time in Persia, if a Muhammadan child be sick, the mother frequently makes a vow that the razor shall not come upon his head for a certain time, and sometimes for life, as in 1 Samuel i. 11. When the time that is limited expires, the child's head is shaved, money is collected from the relatives, and sent as nazr or offerings to the mosque, and consecrated. Homer speaks of parents dedicating to some deity the hair of their children which was cut off when they came to manhood, and consecrated to the gods. Achilles cut off his golden locks at the funeral of Patroclus, and threw them into the river, his father having dedicated them to the river-god Sperchius. In the south of India, at the sacred hill of Triputtay, thousands of both sexes annually cut off their hair, and leave it as a votive offering.—*Milner's Seven Churches*, p. 110; *Iliad*, xxiii. 149, etc.; *Æneid*, i. 698.

NAZIM, under the native rulers of India, the chief local revenue and executive officer of a division or nizamat. He was either a salaried officer collecting the revenue for the Government

under the amani or trust system, or he was a farmer or contractor or ijaradar, taking a lease of the revenue of the district at so much per annum. It is also a Muhammadan official name for a cunuch.

NAZM. ARAB. Order, arrangement; poetry, as distinguished from Naar, prose.—*Wils.*

NAZR. ARAB. A present, a fine or fee paid to the state. An offering from an inferior to a superior. Nuzzerana, a fee for investiture, a succession fee; Nuzzerana, or relief, marks the original emanation of a grant, and in Mewar was fixed at one year's revenue of the state. Nuzzur-o-Niaz, vows and oblations.

Nazr or Nazr is an offering from an inferior to a superior, a present. It is the present sent before, as in the time of (Genesis xxxii. 18) Jacob and Esau, when the servants said it is a present sent unto my lord Esau. Also 1 Samuel ix. 7: 'Then said Saul to his servant, But, behold, if we go, what shall we bring the man? for the bread is spent in our vessels, and there is not a present to bring to the man of God: what have we?' When Xenophon on his retreat reached the country of Sentes, and agreed to attach his corps to the service of the Thracian, his officers, on introduction, presented their gifts of homage; but Xenophon presented his sword. This eastern custom is continued. Up to the present day, the native officers of the Indian army, on introduction to a superior, present to him their swords, and, in taking leave, a drop of rose essence is allowed to fall on the half-drawn blade. It is a very effective, interesting rite. The Viceroy and Governor-General of India at his receptions receives the nazrs of all the princes in the form of coins. It is very common in British India for a person, who is desirous of asking a favour from a superior, to take a present of fruits or sweetmeats in his hand. If not accepted, the feelings of the offerer are greatly wounded. There are periodical occasions in Persia at which all who are admitted to stand in the presence of its monarch are expected to appear before him with a present. Of these, the chief is the Nao-Roz or new year, which occurs about the end of March or beginning of April.—*Fraser's Khorasan*, p. 214; *Tod's Travels*, p. 486.

NAZUL. HIND. Property belonging to Government, usually in charge of district local fund committees; the property is chiefly houses, gardens, or plots of land in cities. In the Panjab the various nazul gardens (i.e. Government property) are generally planted with mangoes, as well as other trees; and the right to the fruit is sold on contract by auction at the beginning of the season. The property of a large garden, like that of Shalimar at Lahore, is something very considerable.—*Powell*, p. 279.

NBAN MAI. This seed is made into oil for lamp and other household use. One basket will give 65 viss of oil.—*Local Committee, Moulmein*.

NEARCHUS, a general whom Alexander the Great commissioned to survey the Southern Asiatic coast, from the mouth of the Indus to that of the Tigris. He sailed along the coast. His journal is incorporated in Arrian's History of Alexander.—*Ind. in 15th Century*.

NEBO, Pisgah, and Peor are parts of the Abarim (*Asapiru*) mountains, to the east of the Jordan. Here was the 41st halt of the Israelites, and Moses died here.—*Catagago*.

NEBONG or Nibong. MALAY. The Onco-

sperma filamentosum, a tall, thin, but straight tree; wood used for railing. Its cabbage is edible.

NEBUCHADNEZZAR, king of Babylon, B.C. 598-562. He was the son of Nabopolassar, who had combined with Cyaxares, king of Media, and a king of Egypt, for the overthrow of Nineveh. After the fall of Assyria, the Median provinces and the north of Assyria, as far as Cilicia, fell to Cyaxares of Media, the south of Assyria and part of Arabia fell to Babylon, the western boundary of Nabopolassar being the Upper Euphrates. All west of Carchemish and south of Cilicia was joined to Egypt. Babylon, by the successes of Nabopolassar and his son Nebuchadnezzar, became for a brief period mistress of Western Asia. B.C. 605, Nabopolassar sent his son Nebuchadnezzar against Necho II., king of Egypt, who was defeated near Carchemish, and all Syria fell to him. Palestine revolted about B.C. 602, he swept down on it, attacking Tyre on the way, and overran Judah, deposed Jehoiachin, and raised his uncle Zedekiah to the throne, carrying Jehoiachin to Babylon. But Zedekiah also revolted, and, B.C. 589, Nebuchadnezzar sent an army to Palestine under his general Nebuzaradan, and B.C. 587 Jerusalem fell. The city was destroyed, the temple burned, its sacred vessels and treasures carried off, Zedekiah's sons put to death, and then Zedekiah's eyes put out, plundering other cities of Judah, and carrying their people into captivity. He followed this up, B.C. 586, by the siege of Tyre, which is said to have been taken B.C. 573. The Jews again revolted, and murdered Gedaliah, the Chaldean governor, which led in 582 to Judah being again ravaged, and the last of its captives sent to Babylon. About this time Nebuchadnezzar repressed the tribes on the borders of the desert east of Palestine, and his army penetrated far into Arabia.

In B.C. 572, Nebuchadnezzar, in personal command of his army, invaded Egypt, defeated the army of Hophra, overran the country, and plundered it of all its wealth. Hophra was deposed, and was replaced by a general named Ahmes or Amasis. The Babylonian empire was at this time at its greatest. It seems to have comprised Elam or Khuzistan on the east, and parts north of this, including Zimri and the region as far as the Zagros mountains, taking in all the best parts of Assyria, and probably all the districts south of the Merdin Rocks, south to the shores of the Persian Gulf, and westwards to Cilicia, where the boundary touched the Mediterranean; all Syria, as far as the Mediterranean, was included; all the northern parts of Arabia and Egypt, with part of Lybia, southwards to the Lybian desert, the cataracts of the Nile.

In Nebuchadnezzar's reign a great commerce was carried on with India. The great temple of Babylon, called Seggal, which was dedicated to Bel-Merodach, he rebuilt, and richly adorned with gold, silver, and precious stones, and here he once more raised the head of the Ziggurat or tower called Temin-sami-irtaiti, the foundation of heaven and earth. The sanctuary of Bel he roofed with cedar brought from the mountains of Lebanon, and overlaid with gold; the temples of Birbir and Ziru, dedicated to Bel and Rubat, the temple of the Sun, the temple of the Moon-god, the temple of Vul, the atmospheric god, the temple of the goddess Gula, the temple of Venus, and

other buildings, he constructed and beautified. He formed the celebrated hanging gardens, consisting of arched terraces covered with earth, which was planted with trees and flowering shrubs. He rebuilt the great walls of Babylon; on the other side of the Euphrates he rebuilt the temple of Nebo, and some smaller shrines. Here was a celebrated ruined temple in the form of a truncated pyramid or ziggurat, 70 feet (42 cubits) high, and this Nebuchadnezzar rebuilt in the form of a temple of seven stages, each stage being dedicated to one of the planetary bodies. He rebuilt the principal temples at all the cities of Babylonia, but in Babylon he lavished his wealth, and the richer classes followed his example, and the noblest youths from conquered provinces served in the presence of the king and courtiers. According to the writings of Daniel, during the latter part of his reign the king became insane. He died B.C. 562, and was succeeded by his son Amil-Maruduk, the Evil Merodach of the Hebrew Scriptures. The name Nebuchadnezzar is written in many ways in the Bisutan inscription,—we have Nabokhodrosor, Nabukhadrachar, and Nabukhudrachar. In pure Babylonian inscriptions it undergoes even more numerous changes. In Daniel he is called Nebuchadnezzar or Nabuchodonosor, in Ezekiel (xxvi. 7) the name is written Nebuchadrezzar. The first component of the word, Nebo, was the name of a Babylonian divinity (Isaiah xli. 1). The Muhammadans call him Bakht-un-Nasr.—*Smith's Babylonia; Layard's Nineveh*, ii. p. 177; *Bunsen*. See Babylon.

NECHO II., a king of Egypt who reigned about 600 years B.C. He was desirous of joining the Red Sea with the Nile. He is also said by Herodotus to have sent a fleet of triremes under Phœnicians from the Red Sea, round the Cape of Good Hope, to the Mediterranean, a voyage which they accomplished in two years. Necho (like his predecessor Rameses Sesostis) and his successors Darius (son of Hystaspes) and Ptolemy Philadelphus, had in view the diversion of the Red Sea trade exclusively to Egypt, and for that account the canal which they endeavoured to construct was cut, not from the Mediterranean, but from the Nile, between Memphis and the Red Sea.

NECKLACE.

Collier,	FR.	Monile,	IT.
Nalsband,	GER.	Collar,	SP.
Kanthi, Mala,	HIND.		

Necklaces of precious stones, of the precious metals, of shells, seeds, etc., are worn by all races of British India, by men and women amongst Hindus, by women amongst Muhammadans. A string of beads, usually of the quartzose minerals, is worn by Muhammadan fakirs; also head-necklaces of seeds by the heads of Hindu religious establishments, as a mark of dignity; and wood and seed necklaces by Hindu mendicants and ascetics.

NEDDIAVATTAM, a hamlet on the Neilgherry Hills, at 5800 feet elevation.

NEEDLES.

Aiguille,	FR.	Jarum,	MALEAL.
Nadel,	GER.	Wusigal,	TAM.
Sui,	HIND.	Sudulu,	TEL.
Ago,	IT.	lyne, Ighno,	TURK.

The ancient Egyptians were skilled in needle-work. Joseph's dyed coat of many colours is,

however, the first mention (B.C. 1705) of this art amongst the Hebrews, and the only elaborate description of needle-work in the Bible is of that made by the Hebrew women to decorate the tabernacle and the priests' dresses. At the period of the building of the tabernacle, the priests' ephods were to be made of 'gold, of blue, and of purple, of scarlet, and fine twined linen, with cunning work.' 'And beneath upon the hem of it, thou shalt make pomegranates of blue, and of purple, and of scarlet, round about the hem thereof; and bells of gold between them round about. . . . And thou shalt embroider the coat of fine linen, and thou shalt make the mitre of fine linen, and thou shalt make the girdle of needle-work. And for Aaron's sons thou shalt make coats, and thou shalt make for them girdles, and bonnets shalt thou make for them, for glory and for beauty' (Exodus xxviii. 33, 39, 40). 'Moreover, thou shalt make the tabernacle with ten curtains of fine twined linen, and blue, and purple, and scarlet: with cherubim of cunning work shalt thou make them' (Exodus xxvii. 1). This curtain is elsewhere more particularly described as being of linen entirely, on which the most skilful of the Hebrew ladies embroidered cherubims with scarlet, purple, light blue, and gold thread, which was solid bullion, beaten out so fine that it could be even woven. The women had devoted their bracelets and other gold ornaments to the purpose, and every one who had cloth of the beautiful dyes named also made an offering of it. Besides this, 'all the women that were wise hearted did spin with their hands, and brought that which they had spun, both of blue, and of purple, and of scarlet, and of fine linen. And all the women whose hearts stirred them up in wisdom spun goat's hair.' The linen embroidered made the inner covering of the temple. The spun goat's hair was the second covering, and above were skins, such as the Arabs still use for their tents. Embroidered work was executed in India, and exported from it in very remote ages, and the use of needles is very frequently referred to.—*Leisure Hour*. See Embroidery.

NEGAPATAM, a seaport town on the Coromandel coast, in lat. 10° 45' 30" N., long. 79° 53' 30" E., in the Tanjore district. The town has a considerable coasting trade; is near one of the mouths of the Cauvery. It was taken from the Portuguese by the Dutch in 1660, and became the headquarters of the Dutch trade on the Coromandel coast. It was taken by the British in 1781. It has an ancient brick tower 70 feet high, supposed of Buddhist or Jaina origin; it is called Gangondram. 20 per cent. of the population consist of Labbai Muhamadans. Negapatam is the terminus of the Great S. of India Railway. It has a Jesuit college, a Wesleyan mission establishment, and two large Hindu temples.—*Cal. Rev.*

NEGRAIS, an island, a river, and a cape of this name. The cape is in lat. 16° 2' 30" N., long. 94° 13' E.; is the south-west land of the coast of Ava. A river of the same name is navigable inland by a channel on each side of the island.

NEGRITO, a short-statured race of Negroes in several islands of the Eastern Archipelago.

NEGRO RACES. The existence of a Negro race in the Indian Archipelago seems to have

been known to Ptolemy the geographer, who flourished soon after the commencement of the Christian era. In the last map of his volume, that which contains the Aurea Chersonesus and the Jabados Insule, supposed to have meant respectively the Malayan Peninsula and Sumatra and Java Islands, he places a country far to the eastward of the Aurea Chersonesus, under the equinoctial line, which he states to be occupied by Æthiopes Ichthyophagi. The country alluded to was apparently New Guinea, and Æthiopes was the appellation by the Romans for the black, woolly-haired Africans, to distinguish them from Mauritani and other races on the coast.

Ethnologists are of opinion that Africa has had an important influence in the colonization of Southern Asia, of India, and of the Eastern Islands, in times prior to authentic history or traditions. The marked African features of some of the people in the extreme south of the Peninsula of India, the Negro and Negrito races of the Andamans and Great Nicobar, the Semang, Bila, and Jakun of the Malay Peninsula, and the Negrito and Negro, Papuan and Malagasi races of the islands of the Indian Archipelago, Australia, and Polynesia, indicate the extent which characterizes their colonization.

A Negro race occupies the hills in the Dandilli district of N. Canara. Their origin has not been traced; but since the Muhammadans of Arab, Afghan, Moghul, and Turk origin have been invading India, almost all the dynasties have retained large bodies of Africans, either of the large-lipped, curly-haired Negro type, or of the softer-featured Abyssinian, and one ruling family of Abyssinians was the Habshi or Sidi of Janjirah near Bombay. The Negro sailors of the Sidi continued up to the 18th century the most ruthless pirates on the west coast of India. The Adal Shahi and Nizam Shah Bhairi dynasties, who ruled in Bijapur and Ahmadnagar in the 15th and 16th centuries, had considerable bodies of Negro soldiers as their household troops. The Talpur Amirs of Sind had, till the latest hour of their rule, bodies of African Negroes around them; the nawabs of the Carnatic had a small body of the Negro race as their household slaves. The Negro race are numerous in Las and Mekran, and they still form part both of the regular and irregular troops of the nizams of the Dekhan.

Mr. Logan thinks that Southern Asia has always been occupied as at present with several races, tribes, and languages, and that S.W. Asia and Asianesia have been contemporaneously occupied by—1. Archaic Indo-Australian; 2. Papuan; 3. Tibeto-Chinese or Ultra-Indian; 4. Dravidian; 5. Scythic; 6. Iranian; 7. Semitic races; and the spiral-haired Negro race seems to have preceded the lank-haired brown race. But, according to Mr. Logan, the oldest races of India, Ultra-India, and Asianesia were of a variable African type, the two principal forms being Australo-Tamilian or quasi-Semitic and Negrito, followed in Asianesia by the Malagasi. He is of opinion that the present prevalent Ultra-Indian races entered the region from the north-east, and at a very remote period spread, on the one side, over Ultra-India and the basins of the Brahmaputra and Ganges, and partly into Southern India; and, on the other, were diffused by a long succession of movements all over Asianesia. Throughout these

regions they came in contact with more ancient races, and have in some places variously blended with them, and in some dislodged or exterminated them, while in others the old tribes have been able to maintain a certain degree of independence and purity. In Southern India, the ancient element was preserved in some degree, owing apparently to a civilisation early received from partially allied Semitic-African and Semitic nations. In the Andamans, the interior of the Great Nicobar, the jungles of the Malay Peninsula, in Australia, and in the various Papuan and partially Papuan islands, the African element has been maintained from the comparative isolation of the tribes. In the Gangetic province, as in the greater portion of Ultra-India, including the Malay Peninsula, the intrusive race appears to have been recruited by the entrance of new tribes from the north-east, and to have ultimately assimilated the native race, although the influence of the latter is still slightly perceptible. He remarks that when we consider the position of India, between the two great Negro provinces, that on the west being still mainly Negro, even in most of its improved races, and that on the east preserving the ancient Negro basis in points so near India as the Andamans and Kedah, it becomes highly probable that the African element in the population of the Peninsula has been transmitted from an archaic period before the Semitic, Turanian, and Iranian races entered India, and when the Indian Ocean had Negro tribes along its northern as well as its eastern and western shores. The basis of the present population of the Dekhan, he says, was of an African character, which was partially improved by Turanians or Irano-Turanians and Semitic-Turanians from the N.W., and afterwards by more advanced ancient N.E. African and Semitic settlers. Perhaps all the original population of Southern Arabia, and even of the Semitic lands generally, was once African; and the Semitic race had descended on them from a tribe located in the mountains at the head of the Euphrates.

From the time when the adjacent shores of the Indian Ocean began to be the seats of general commercial and maritime nations, the Peninsula must have been exposed to the regular influx of foreign traders and adventurers. From the antiquity of the Egyptian civilisation, it is probable that the earliest commercial visitors were Africans from Eastern Africa or Southern Arabia. It is certain that the subsequent Semitic navigators of Arabia at an early date established that intercourse with India which they have maintained to the present day. The trade between India and the west appears to have been entirely in their hands for about 3000 years. During that period, the Arab navigators not only remained for some months in the Indian ports between the outward and home voyages, but many settled in them as merchants; and, under the name of Moormen in Ceylon, and as Moplah and Labbai in the Peninsula, their descendants are active, thriving members of the communities.

Mr. Logan thinks that the influence of African and Arabic blood must have preceded that of the Aryan in the southern part of the Peninsula. In after ages, the Aryan ingredient in the Peninsular population became considerable, but it has not modified the native races in the same degree as it

has done the Bengali. The languages are still essentially distinct, and the non-Aryan physical element remains strong. In Southern India are languages of one formation, which is broadly distinguished from the Aryan or Sanskrit on the one side, and from Tibetan and Ultra-Indian on the other. Physically, the population of Southern India is one of the most variable and mixed which any ancient archaic province displays, the number of varieties amongst the people being too great to allow of their being referred to a single race of pure blood. Some are exceedingly Iranian, more are Semitic-Iranian, some are Semitic, others Australian; some remind us of Egyptians, while others again have Malayo-Polynesian and even Semang and Papuan features. The strong Africanism of some of the lower South Indian castes is believed to be the remnant of an archaic formation of a more decided African character. In certain of the classes of Southern India in which the complexion is fairer, an Egyptian style of features is not unfrequently observable. In this, the nose is not indented at the root. It is long and slightly curved; the eyes almond-shaped and slightly oblique, and the chin is short. In general, the physiognomy is more the Iranian than the East African and Egyptian. Where the Aryan or Semitic crossing is not striking, the person is generally rather small and slender, the legs in particular being very thin, compared with those of the Gangetic race. The colour varies from black to different degrees of brown and yellowish-brown, in general contrasting strongly with the Ultra-Indian and Indonesian races. There is a tendency to certain peculiar physical traits, neither Ultra-Indian, Tibetan, nor Aryan, but seem to be East African. The typical East African head is removed both from the exaggerated prognathous form, prevalent amongst the Guinea Negroes, and the highly Semitic form characteristic of tribes that have been deeply crossed by Arab blood, and is in some respects intermediate between the Iranian and Turanian, while it has specialities of its own. The cheek-bones are often much more prominent than in the Iranian, and less so than in the typical Turanian, the projection being frequently anterior more than lateral. The lips are full or turgid, and turned out, frequently with sharp edges. Slightly prognathous heads are not infrequent. In the South Indian population as a whole, the bridge of the nose is generally less prominent than in the Iranian, and much more so than in the Turanian. Even where the root of the nose, between the eyes, sinks in, the upper line as a whole is much more thrown out from the face than in the Turanian head, so as to render the point comparatively sharp and prominent. The alae have an upward expansion, leaving the upper part of the septum exposed, and the elongated nares open and conspicuous. This is a Semitic-African trait. The Afro-Papuan pyramidal nose, with a deep and sharp sinking in at the root, is common, particularly in some of the lower castes, in which the colour is nearly black. Mr. Logan thinks it probable that at one period this lower and apparently the more normal southern type characterized the whole population of India. Even yet amongst the Vindhya, some tribes are found who seem to approximate to it, such as the little ill-favoured

Tamariah, the neighbours of the Ho, and the short and jet black Saura, who are spread for 200 miles from the hilly southern side of the basin of the Ganges along the eastern face of the ghats to the Godavery, who are much in person, in civilisation, akin to the Gangetic population. The Chensuar, who occupy the western portions of the continuation of the ghats between the Pennar and the Kistna, are described by Captain Newbold as being between a Teling and Jakun of the Malay Peninsula, and the Jakun of the Malay Peninsula is the most African and prognathous of the lank-haired Indian tribes. The Chensuar live in beehive-shaped huts like the African, Nicobarian, and many of the ruder Asian tribes.

The sequestered tribes of Southern India in some cases approximate to the more Turanian-African type, in which the nose is flatter, the beard scanty, and the person shorter. There is so considerable a difference between this type and the more Semitic, that, whatever may be the original relationship of the two, it is necessary to recognise both as existing in India at the earliest era which ethnology can descry. A similar phenomenon presents itself on the western side of the Indian Ocean, and, what is still more important with reference to India, it is found also in the Negro population of the eastern side. Many of the East African tribes are very short and slender, small-eyed, flat-faced, and beardless, while others are middle-sized and even tall and robust, with the Semitic-African beards, aquiline or pyramidal noses, raised narces, and large eyes of the other archaic types of Southern India. Both types preserve a black complexion, alike in Africa, India, the Andamans, the Malay Peninsula, the Malayo-Polynesian Islands, and Australia, although modifications of colour also occur throughout this area. Mr. Logan thinks that little weight is to be attached to the present absence of spiral hair in S. India, for some of the spiral-haired Papuan tribes of New Guinea and Torres Straits are often more Africo-Semitic and S. Indian in their physiognomy, than the Australians, while the latter have the fine hair of S. Indians and some Mid-African nations, and a linguistic formation which resembles the S. Indian more than any in the world.

In *Further India*, in the extreme S.E. of Asia, are two marked types of the human family. These are the lank-haired Malay and brown races, and the curly-haired races to whom the terms Negro, Negrito, Papuan, Alfura, etc., have been applied. The Ultra-Indian races in their fundamental characters, physical and mental, and in all their social and national developments, from the lowest or most barbarous stage in which any of their tribes now exist, to the highest civilisation which they have attained in Burma, Pegu, Siam, and Cambodia, are intimately connected with the predominant Oceanic races. The tribes of the Niha Polynesian family, who appear to have preceded those of the Malayan, resemble the finer type of the Mon, Burman, and the allied Indian and Himalayan tribes. The Malayan family, according to Mr. Logan, approximates closely to the ruder or more purely Mongolian type of Ultra-India, and the identity in person and character is accompanied by a close agreement in habits, customs, institutions, and arts, so as to place beyond doubt that the lank-haired populations of the islands have been received

from the Gangetic and Ultra-Indian races. The influx of this population closed the long era of Papuan predominance, and gave rise to the new or modified forms of language which now prevail.

The opinions of other eminent writers merit notice. In the Archipelago, there seemed to Mr. Crawford to be four races of man, the Malays proper, the Semang or dwarf Negro of the Malay Peninsula, the Negrito or Aeta of the Philippines, the larger Negro race or Papua of New Guinea, and a race whom Crawford styles the Negro-Malay, intermediate between the Papuan and Malay.

Both Mr. Earl and Mr. Alfred Wallace have shown that the Archipelago is divisible into an Asiatic and an Australian portion, that the flora and fauna differ, and that all the peoples of the various islands can be grouped either with the Malay or the Papuan, two radically distinct races, who differ in every physical, mental, and moral character; and Mr. Wallace states his belief that under these two forms, as types, the whole of the peoples of the Malay Archipelago and Polynesia can be classed. He considers that a line can be drawn which shall so divide the islands as to indicate the one-half which truly belongs to Asia, while the other no less certainly is allied to Australia; and he designates these respectively the Indo-Malayan and the Austro-Malayan divisions. Mr. Wallace gives to Mr. Earl the credit of having been the first to indicate the division of the Archipelago into an Australian and Asiatic region. All the wide expanse of sea which divides Java, Sumatra, and Borneo from each other, and from Malacca and Siam, rarely exceeds 40 fathoms in depth, and the seas north to the Philippine Islands and Bali, east of Java, are not 100 fathoms deep; and he is of opinion that these islands have been separated from the continent and from each other by subsidence of the intervening tracts of land. In the Indo-Malayan Islands of Sumatra and Borneo are the elephant and tapir; and the rhinoceros of Sumatra and the allied species of Java, the wild cattle of Borneo, and the species long supposed to be peculiar to Java, all inhabit some part or other of Southern Asia. Of the birds and insects, every family, and almost every genus, of the groups found in any of the islands, occur also on the Asiatic continent, and in a great number of cases the species are exactly identical. The resemblance in the natural productions of Java, Sumatra, and Borneo with those of the adjacent parts of the continent, lead to the conclusion that at a very recent geological epoch the continent of Asia extended far beyond its present limits in a southeasterly direction, including the islands of Java, Sumatra, and Borneo, and probably reaching as far as the present 100 fathom line of soundings. The Philippine Islands agree in some respect with Asia and the other islands, but present some anomalies which seem to indicate that they were separated at an earlier period, and have since been subject to many revolutions in their physical geography.

On the other hand, all the islands from Celebes and Lombok eastward exhibit almost as close a resemblance to Australia and New Guinea as the western islands do to Asia. Australia in its natural productions differs from Asia more than any of the four ancient quarters of the world differ

from each other, and all its striking peculiarities are found also in those islands which form the Austro-Malayan division of the Archipelago. The contrast between the Asiatic or Indo-Malayan forms and those of the Austro-Malayan is abruptly exhibited in passing from the island of Bola to that of Lombok, though the strait is only 15 miles wide; and in travelling from Java or Borneo to Celebes or the Moluccas the difference is still more striking, leaving the only inference that the whole of the islands eastwards beyond Java and Borneo do essentially form a part of a former Australian or Pacific continent, although it may never have actually been joined to it, and it may have been broken up before the western islands were separated from Asia, and probably before the extreme south-eastern part of Asia was raised above the waters of the ocean.

The numbers of Negroes in Africa are vaguely estimated at 20 millions, including the Hottentot and Kafir offshoots from the great family. The race on the American continent are now fewer than the whites. But they are prolific; and Professor Gilliam estimates that by the year 1984 the black population of the Southern States will be 192 millions, while the white will be only 96 millions. Their numbers on the Asiatic continent, on the shores of the Red Sea and Persian Gulf, and in the Malay Peninsula, may not exceed half a million; but from the Andaman Islands eastwards to the races in the Pacific, of the people generally classed as Negroes there are at least 12 varieties, differing from each other in physical appearance, some being pigmies under five feet, and others large and powerful men of near six feet. Some of these will now be noticed.

The *Mincopi* Negroes of the Andamans are in the very lowest and most abject state of human society, without fixed dwellings, unclad, and unacquainted with the meanest of the useful arts of life. In disposition they are unsocial and mischievous. They seem to have been isolated for an unknown period; and when the British last settled on their islands, in 1858, they were found in the lowest condition to which human beings can fall. They are not cannibals, as was long supposed, but live on pork, fish, grains, roots, cocoanut, and other fruits, and broil the flesh of their animals before eating it. They may be called hunters and fishermen, hunting game in their own wilds and jungles, using the bow and arrow, with which they are expert, and employ the bark of a tree for fishing-lines. They have no clothing, but go entirely naked, and seem unconscious of that feeling of shame which guides the other races in the world to cover their persons. They construct huts, but of the rudest character. They were intensely averse to the intrusion of strangers. They are small in stature, seldom rising in height over five feet. The head is small, and depressions exist in the temporal region. The teeth are nearly white, but often so irregular as to seem in double rows. They are muscular. Their bodies are scarified all over with broken glass, which gives the skin a bead-like appearance, the lines running longitudinally down the arms and bust. When pleased with anything to which their attention is drawn, they gently bite with their teeth the lower edge of the palm of the right hand, and then smartly strike the left shoulder. They also contract the lips as in kissing, and make a hissing noise like that of

grooms in cleaning horses. When they speak to one another their pronunciation is so indistinct as to resemble a chatter, but they are sharp in catching words and sounds. In dancing, they hop on one foot, beating it down smartly in regular time, keeping both hands raised above the head. They change feet, keeping cadence with the song, work the head, bow the body, and thus spring and jump till the dance is closed.

Semang, Bila. — Further eastward, in the northern portion of the Malay Peninsula, within the Kedah, Perak, Pahang, and Tringanu territories, is a Negro race known to the Malays under the names of Semang and Bila. Their complexion is black or sooty, the hair woolly, the features approaching to the African, and the stature dwarfish. An adult Semang male, of the mean height of this people, was found to be only four feet nine inches high. Some of the Semang or Bila have fixed habitations, and practise a rude agriculture, but the majority lead an erratic life, gathering the rude products of the forest to exchange with the Malays for the necessities of life, or substituting those of the chase.

The average height of the adults of a party of Semang Bukit on the Ijan, a feeder of the Krian, was four feet eight inches, the highest four feet ten inches. Head small, ridged, that is, rising above the forehead in an obtuse wedge shape, the back rounded and markedly narrower than the zygomatic or middle zone; the face generally narrower and smaller than the Malay; eyebrows very prominent, standing out from the forehead and projecting over the ocular furrow which extends across the face, the root of the nose sinking into it and forming a deep angle with the base of the superciliary ridge. The nose short and somewhat sharp at the point, and often turned up, but the alæ spreading; eyes fine, middle-sized, and straight; iris large, piercing; conjunctiva membrane yellow; the upper eyelashes, owing to the deep ocular depression or prominent ridges, are compressed or folded, the roots of the hair being hidden. The cheek-bones generally broad, but in some cases not remarkably prominent, save with reference to the narrow forehead. Mouth large or wide, but lips not thick or projecting; the lower part of the face oval or round, but not square. The deep depression at the eyes, and sinking in at the root of the nose, give a very remarkable character to the head, compared with the Malay. The projecting brow is in a vertical line with the nose, mouth, and chin, and the upper jaw is not projecting or prognathous. The person is slender, the belly protuberant, owing to their animal life in the jungle and precarious food. This induces them to cram themselves whenever they can, and the skin of the abdomen thus becomes flaccid and expansible like that of an ape. The skin generally is fine and soft, although often disfigured by scurf, and the colour is a dark brown, but in some cases lighter and approaching to the Malay. The more exposed hordes are black. The Semang of Tringanu are not of such a jet black glossy colour as the Kedah tribe. The hair is spiral, not woolly, and grows thickly on the head in tufts. They have thick moustaches, the growth being much stronger than in the Malay race. The head is neither Mongolian nor Negro of the Guinea type; it is Papua-Tamulian. The expression of the face is mild, simple, and stupid.

The voice is soft, low, nasal, and hollow or cerebral. A line of tattooing extends from the forehead to the cheek-bones. The right ear is pierced, the orifice being large. The hair is cropped, save a ring or fringe round the forehead.

Semangs are found in all the rivers of Perak, and are classed as the Semang Paya, who frequent the low and marshy alluvium between the sea and the hill, the Semang Bukit, who wander in the forests of the hills, and the Saki, who are confined to the mountains of the interior. There are said to be numbers of Semangs in the interior of Patani, Triangnu, Kedah, and Perak, wherever the country is covered with forest, and there are few or no Malays. Semang tribes of Kedah and Perak have a language mainly dissyllabic like other Asianesian ones. The people of Kedah more often approximate to the eastern Negro type than in Southern Malaya, and Mr. Logan was particularly struck with the repeated occurrence of the deep nasal depression of the Semangs, the Australians, and Papuans. Small heads, with all the features as it were contracted or compressed, were common.

The Papuan race are to be found in the islands of Floris, Sumba or Handana, Adenara, Solor, Lombok, Rutar, Ombay, Wetter, Rotte, Servatty, Babbar, Timor, Timor Laut, Larat, Tenember, part of Bourou, part of Ternate, the Ki Islands, Ceram, Ceram Laut, Banda, Amboyna, Batchian, Oby, Gilolo, Morty, Aru, Vorkai, New Guinea, Myforc, Jolii, Mysol, Waigiu, Salwatty, Ausus, Bo, Geby, Goram, Hoek, Luçon, Mindanao, Mindoro, Moluccas, Mysol, Negros, New Guinea, Patani, Poppo, Sumba Islands, New Caledonia, New Ireland, Otaheite, Polynesia, and Fiji. Tana Papua, or land of the Papua, is a term applied by the Malays not only to New Guinea, but to all the adjacent islands which are occupied by the frizzly-haired race.

The Malayan term for crisped or woolly hair is rambut pua-pua. Hence the term pua-pua, or papua (crisped), has come to be applied to the entire race, and expresses their most striking peculiarity.

The features of the Papuans have a decided Negro character: broad nose, thick and prominent lips, receding forehead and chin, and that turbid colour of what should be the white of the eye, which is apt to give the countenance a sinister expression. Their natural complexion is almost universally a chocolate colour, sometimes closely approaching to black, but certainly some shades lighter than the deep black which is often met with among the Negro tribes of Africa. The Papuans, when placed in circumstances favourable for the development of their powers, are physically superior to other races of South-Eastern Asia. Some of the New Guinea tribes would bear a comparison, in point of stature and proportions, with the races of Europe, were it not for a deficiency about the lower extremities. Even the more diminutive mountain tribes are remarkable for energy and agility, qualities which had led to their being in great demand as slaves among their more civilised neighbours. With regard to mental capacity, also, they are certainly not inferior to the brown races; but their impatience of control while in an independent state, utterly precludes that organization which would enable them to stand their ground against encroachment, and they invariably fall under the influence of the

Malayans whenever the two races are brought into contact.

Within the geographical limits of the Indian Archipelago, the Papuans only appear, as inhabitants of the sea-coast, in New Guinea and the islands immediately adjacent. In other parts of this region they are found only among the mountain fastnesses, maintaining an unequal struggle with the brown races by whom they are surrounded. In some of the Spice Islands, the group nearest to New Guinea, their extirpation is matter of history, as observed by Mr. Crawford (History of the Indian Archipelago, i. p. 18). In Ceram and Gilolo a few scattered remnants of the race still exist; but they hold little or no intercourse with their more civilised neighbours, flying into the thickets, which afford them shelter and concealment, on the first appearance of a stranger, experience having taught them that death or captivity will be their fate if they fall into the hands of their natural enemies. The characteristics of the mountain Papuans must therefore be sought in those islands where their numerical strength permits them to lead a life more fitted for human beings than that of their hunted brethren. It is an error to suppose that these poor creatures disappear before civilisation. Their chief destroyers are the wild and warlike hunting tribes of the brown race; and, excepting the case of the Moluccas, wherever European civilisation has been introduced, the Papuans are more numerous than elsewhere. In the Philippines, for example, according to an intelligent modern traveller, their number in the year 1842 amounted to 25,000 souls (M. Mallat, Les Philippines, etc., i. p. 97, Paris 1846). The large island of Mysol, or Masual, which lies nearly midway between the north-western extremity of New Guinea and Ceram, is said to have been occupied exclusively by Papuans when this region was first visited by Europeans, and they still form the bulk of the inland population, but the villages of the coast are occupied by a mixed race, in which, however, the Papuan element prevails. The islands of Goram, Ceram Laut, Bo, Poppo, Geby, Patani, Hoek, and the south-eastern extremity of Gilolo, are also occupied by people of the mixed race, who are remarkable for their maritime activity, and for their friendly disposition towards European strangers. The woolly-haired tribes are more numerous in the Philippines than in any other group of the Indian Archipelago, with the exception of New Guinea. The island on which they were first seen was named by Magellan, Isla dos Negros, to distinguish it from the adjacent island Zebu, where his ships remained for some months. Negros Island still contains a large population of Papuans, while Zebu is altogether free from them, and no record exists of their having ever been found there. Samar and Leyte are similarly situated with Zebu.

Mr. Wallace (i. p. 280) believes that the numerous intermediate forms which occur among the countless islands of the Pacific are not merely the result of an intermixture of these races, but are to some extent truly intermediate or transitional, and that the brown and the black, the Papuan, the natives of Gilolo and Ceram, the Fijian, the native inhabitants of the Sandwich Islands, and those of New Zealand, are all varying forms of one great Oceanic or Polynesian race. Professor Huxley,

however, is of opinion that the Papuans are more nearly allied to the Negroes of Africa than to any other race. The whole of the great island of New Guinea, the Ki and Aru Islands, with Mysol, Salwatty, and Waigiou, are inhabited almost exclusively by the typical Papuan, and the same Papuan race extends over the islands east of New Guinea as far as the Fiji Islands. The people on the coast of New Guinea are in some places mixed with the browner races of the Moluccas. In the typical Papuan, the colour of the body somewhat varies; generally it is a deep sooty-brown or black, somewhat approaching, but never quite equalling, the jet black of some Negro races, but it is occasionally a dusky brown. The hair is harsh, dry, and frizzly, growing in little tufts or curls, which in youth are very short and compact, but afterwards grow out to a considerable length, forming the compact frizzled mop which is the Papuan's pride and glory. The face has a beard of the same frizzly hair, and the arms, legs, and breast are also more or less clothed with hair of a similar kind. In stature, the Papuan is superior to the Malay, and the equal or superior of the average European. The legs are long and thin, and the hands and feet larger than those of the Malay. The face is somewhat elongated; the forehead flattish, the brows very prominent; the nose is large, rather arched and high, the base thick, the nostrils broad, and the aperture hidden, owing to the tip of the nose being elongated; the mouth is large, the lips thick and protuberant. He is impulsive and demonstrative in speech and action; his emotions and passions express themselves in shouts and laughter, in yells and frantic leavings; women and children take their share in every discussion. The Papuan has much vital energy. In the Moluccas, Papuan slaves were often promoted to places of considerable trust. He decorates his canoe, his house, his domestic utensils, with elaborate carving. They are often violent and cruel towards their children. The Dutch, since the early years of the 19th century, have formed settlements on New Guinea, and on the 6th November 1884, Great Britain proclaimed its protection east of long. 141°. If the tide of European civilisation turn towards New Guinea, the Papuan, like the true Polynesian of the farthest isles of the Pacific, will no doubt become extinct. A warlike and energetic people, who will not submit to national dependence or to domestic servitude, must disappear before the white man. A race identical in all its chief features with the Papuan, is found in all the islands as far east as the Fiji.

Mysol and Waigiou are Papuan, mixed, partly from Gilolo, partly from New Guinea.

The larger Papuans are more remarkable for their strength than for their symmetry. They have broad shoulders and deep chests, but a deficiency is generally found about their lower extremities, the splay feet and curved shins of Western Africa being equally or even more common among those whom Mr. Earl calls the gigantic Papuans. The independent Papuans are invariably treacherous and revengeful. The tribes on the N.E. coast of New Guinea, for instance, are never to be depended on. They retain an unextinguishable hatred towards all who attempt to settle in their territory, and this is probably the cause of

their being found in the interior of islands where mountains exist, and their utter extermination in all the islands where there are no fastnesses to which they could retire.

Papuans never tattoo their skins, but they raise the skin over the shoulders, breast, thighs, and buttocks into cicatrices, often as large as the finger.

A Negro race occurs in the island of Flores, and in the great island of New Guinea they form the whole native or aboriginal population, as they also do of the islets near its coasts. In New Guinea the many Papuan tribes are generally in a state of warfare with each other, and return from their warlike expeditions with heads. The New Guinea people worship a wooden deity called Karwar, 18 inches high, whom they consult on all occasions. A widow remains in the family of her deceased husband. The Negroes of New Guinea are in various states of civilisation. Some of the rudest dwell in miserable huts, and seek a bare subsistence by the chase, or the spontaneous productions of the forest. There are, however, other Negro tribes living on the coast who have made some advance in civilisation. These dwell by whole tribes in huge barn-like houses raised on posts, like those of the wild inhabitants of Borneo, but ruder.

In *Dori* the Papuans are called Myfore. They are about 5 feet 3 inches high, few attain 5 feet 6 inches. They wear their crisped hair its full length, and generally uncared for, which gives them a wild, scared appearance. The men, not the women, wear a comb. The beard is crisp. The forehead is high and narrow; eyes large, dark brown or black; nose flat and broad; mouth large, lips thick, and teeth good; few have regular features, and most are apathetic. The ordinary men wear a waist-cloth made of the bark of a tree, called mar, which is wrapped round the waist, and passed between the legs. Women wear a short sarong to the knee, generally of blue cloth. Men and women tattoo their bodies on occasions, by pricking the skin with a fish-bone, and rubbing in lamp-black. The Dori people are a seafaring people, and are expert swimmers and divers. Their prahus have outriggers, and are excavated from the trunk of a single tree. Their food consists of millet, obi, maize, a little rice, fish and hog's flesh, and fruits. Sago is imported in small quantities. Theft is considered a grave offence. They are chaste, and marry one wife.

The *Aru Islands* extend 100 miles from north to south. Inland are many fresh-water swamps, with thick, impenetrable jungle in other places. Their produce is pearls, mother-of-pearl, tortoise-shell, birds of paradise, and trepang. The timber of the islands is much praised. Aru islanders have much intercourse with strangers. They are fond of arrack, and purchase from the Bugis the Papuan slaves brought from New Guinea, who are then employed in diving for pearls and in the beche-de-mer fishery. The Aru islanders are impoverished by their excessive use of intoxicating liquors, imported from Java and Macassar. In personal appearance the people are between the Malayan and Polynesian Negro. They are not many degrees further advanced in civilisation than the natives of the north coast of Australia, to whom many of them bear considerable personal resemblance. In stature they surpass the civilised

natives of Celebes. The dress of the men is a piece of matting or cloth girded round the loins, and drawn tight between the thighs, and a salendang or shawl. No fillet is worn round the head. The hair is woolly, and frizzled out like that of the Papua. The men are of a jealous disposition, and easily roused to anger by abuse of their women or ancestors; otherwise they are mild of disposition. The women wear a mat in front and one behind. Some are Muhammadans. Christianity was introduced many years ago by the Dutch of Amboyna, and nearly all the principal people profess this creed. The Aru Papuan ornament their houses with brazen trays, dulam or talam, and elephants' teeth, which are broken up when the owner dies.

The *Kei* group of ten islands adjoin the Aru Islands. *Ke*, *Kei*, or *Ki* is prefixed to the names of all their villages. The Great *Kei* is about the size of *Tunakeka*, an island near *Macassar*. The men profess Muhammadanism, but eat hog's flesh. The Papuan women of *Ki* are not secluded; the children are merry, noisy, and have the nigger grin, and amongst the men is a noisy confusion of tongues and excitement on every occasion. The *Ki* group form the northern of the south-easterly islands. The islands are covered with luxuriant forests. *Maratigo* and *Banyaro* woods are well adapted for masts. The islands are occupied by two races, one of them the Papuan, who make coconut oil, build boats, and make wooden bowls. Their boats are from small planked canoes to prahus of 20 to 30 tons burden. They build the skin first, and fit on the knees and bends and ribs. Money is not used, but every transaction is in kind. The Papuan wear a waist-cloth of cotton or bark. The other race are Muhammadans, who were driven out of *Banda*. They wear cotton clothing. They are probably a brown race, more allied to Malays, but their mixed descendants have great varieties of hair, colour, and features, graduating between the Malay and Papuan tribes.

Ceram is the largest island of the Moluccas. It is 162 miles long, but its greatest breadth is only 42 miles. The island is one long mountain chain that sets off transverse spurs, and some of the peaks are 5000 or 6000 feet in height. The people of *Ceram* approach nearer to the Papuan type than those of *Gilolo*. They are darker in colour, and a number of them have the frizzly Papuan hair; their features are harsh and prominent, and the women are far less engaging than those of the Malay race. The Papua or Alfuro man of *Ceram* gathers his frizzly hair into a flat circular knot over the left temple, and places cylinders of wood as thick as one's fingers, and coloured red at the ends, in the lobes of the ears. They are very nearly in a state of nature, and go almost naked, but armlets and anklets of woven grass or of silver, with necklaces of beads or small fruits, complete their attire. The women have similar ornaments, but wear their hair loose. All are tall, with a dark brown skin, and well-marked Papuan physiognomy. The Alfuro or Papuan race are the predominant type in the island.

In *Celebes*, the Trans-Javan or Timorian band, and the Moluccas, is a large and important class of Indonesians, who graduate between the Annam type, the Burman, and the Negrito. The most prevalent head, or that of the predominant, is ovoid, but it is somewhat Burman or Indo-Burman

in nose, eye, and colour. *Celebes* is intersected by the equator, leaving a small portion of it in the northern and the mass in the southern hemisphere. Its greatest length is about 500 miles, but its greatest breadth does not exceed 100; and in some places it is hardly one-third of this width. *Celebes* may be considered to be the focus of an original and independent civilisation, which probably sprang up amongst the most advanced of the nations which occupy it, called by themselves *Wugi*, and by the Malays, and after them by Europeans, *Bugi*. In material civilisation the *Bugi* are equal to the Malays.

Philippines.—The woolly-haired tribes are more numerous in the Philippines than in any other group of the Indian Archipelago. They are smaller, more slightly built, and less dark in colour, than the Negroes of Africa, and have features less marked by the Negro characteristics, but have woolly instead of lank hair. The name bestowed on them by the Spaniards is *Negritos*, or little Negroes, but that of *Ita* or *Aheta*, so pronounced but written *Ajeta*, seems to be their usual appellation among the planters and villagers of the plains. They are ebony black, well-formed, and sprightly, but rarely exceed 4½ feet in height.

Of the central group of the Philippines, consisting of *Panag*, *Negros*, *Samar*, *Leyte*, *Masbate*, *Bohol*, and *Zebu*, the two former are the only islands in which Negrito tribes exist to the present day; and even as regards *Panag*, the fact must be considered doubtful. *Negros* Island, however, contains a considerable Negrito population, the crest of the mountain range, which extends throughout the length of the island, a distance of 120 miles, being almost exclusively occupied by scattered tribes.

Waigiou.—The inhabitants of the islands of *Waigiou*, lying between New Guinea and *Gilolo*, one of the Moluccas, are Negroes. *M. Du Perry* represents them as having more regular features.

Gebbe.—*M. Freycinet* has described the Negroes of *Gebbe*, an island also between New Guinea and *Gilolo*, and not far from the latter. The nose is flat, the lips thick and projecting, the complexion a dark olive, the eyes deep-seated, and on average the facial angle 77°, but as high as 81°. In *Gebbe*, *Waigiou*, and some parts also of the coast of New Guinea, the Malayan race may have become intermixed with the Negro, as the complexion is lighter, and the peculiar texture of the Negro hair altered or obliterated.

All the islands extending from New Guinea up to the Fiji group appear to be inhabited by Negroes. But they differ greatly in physical appearance in New Ireland, *Malicollo*, one of the great Cyclades, *Tanna* and New Caledonia in the New Hebrides. A Papuan or Timorese is darker, and with more frizzly hair than the Polynesian, New Zealander, or Otaheitan, but their features are almost identical.

Australian Papuans is a term employed by *Peschel* (p. 338) to designate the inhabitants of New Guinea, the Pelew Islands, *Tombara* (New Ireland), *Birara*, the Solomon group, the New Hebrides, New Caledonia, with the adjacent Loyalty Islands, and, lastly, those of the Fiji Archipelago. The distinctive characters of the race are preserved in greatest purity in New Guinea, although even there, especially in the western half, intermixtures with the Asiatic

Malays have recently taken place. In the other islands mentioned, the Polynesians have intruded themselves among the older populations, and have materially influenced the language and manners, but their influence upon the physical characters has been much less, so that the inhabitants of the Pelew and Fiji groups, as well as of New Caledonia, may be unhesitatingly reckoned among the Papuan race. In the Carolines and Mariannes or Ladrões, Polynesian and Papuan blood is intermingled, but the former predominates, so that, as hybrids, these so-called Micronesians are more correctly placed in the Polynesian group of Mongoloid races.

Fiji.—The Papuan race improves as it recedes from the continent of Asia and advances into the Pacific. The people of Fiji are the aristocracy of their race, are polite and polished in conversation, and have a strong feeling of national pride. But the Papuans of New Guinea, New Caledonia, and the Fiji Islands were addicted to cannibalism.

The Papuan of Fiji have a tufted matting of the hair like the Koin Koin or Hottentots and the San or Bushman of S. Africa, and the narrow shape of the skull common to both. Also among the Papuan women dwelling on the shores of the Utenata river in New Guinea, there is the same tendency to fatty cushions as the women of the Hottentot and Bushman. The Papuans of New Guinea and the smaller islands are praised for their chastity and morality, for their respect to parents, and their brotherly affection.—*Crawford's Malay Grammar and Dictionary*, and in *Jo. Ind. Arch.*; *Logan in Journ. Ind. Arch.*, 1848-1850; *Newbold in Journ. R. As. Soc.* and in *Madras Lit. Soc.*; *Earl's Papuans*; *Spreeuwenberg in Journ. Ind. Arch.*; *Wallace's Archipelago*; *Peschel*.

NEIBUHR, M. CARSTEN. In A.D. 1762, an expedition was organized by king Frederick V. of Denmark, for the exploration of Arabia, but more particularly of the province of Yemen. It was under the charge of the learned M. Carsten Niebuhr, with whom were associated Professor Von Hanen as linguist; Professor Forskal and Dr. Cramer as naturalists; and M. Baurenfeind as draughtsman. They arrived in Yemen in the end of December 1762. Von Hanen died at Mokha on the 25th May 1763, Forskal died at Yereem on the 17th July following, M. Baurenfeind expired at sea, near the island of Socotra, on the 29th August, and Dr. Cramer at Bombay on the 11th February 1764.—*Playfair's Aden*.

NEILL, GENERAL SIR JAMES, K.C.B., an officer of the Madras Fusiliers, who served in the second Burmese war, and distinguished himself during the mutiny, where he commanded his regiment. He took possession of the railway to reach and save Benares, and he then advanced to Allahabad. He was the first to stem the rebellion.

NEJD or **Najd** occupies nearly the centre of, and is the largest province in, Arabia, being in its greatest limits 640 miles from north to south, and 750 miles from east to west. On the east is the long strip of El-Hassa, or Hajar, on the north that part of Arabia Deserta called Tauf, the Hijaz on the west, with a part of Yemen on the south, and the desert of Ahkaf on the south-east. The surface, as the name implies, is elevated, but it is diversified with mountains, valleys, and plains. Some writers consider the mountainous district of

Nejd Arad as a separate province, for Nejd has been defined by various writers in various ways. The Turks, in their official documents, include, for political reasons, all the former territories of the Wahabee empire in that name, giving to their new conquest on the seaboard of El-Hassa the title of 'Our Vilayet of Nejd.' The fact is that Nejd is a purely geographical expression, in no sense political, and in Arabia means all the high-lying district included within the Nefuda.

The existence of a fresh-water lake at El-Hassa, and of several in Nejd, as ascertained by Captain Sadleir, has established the fidelity of Strabo in this particular. There are others, but of small size, in Arabia Felix, in Tehameh, and in Oman, and one called Salome in Ahkaf. The Anezi, in the time of Burkhart, were the most powerful Arab nation in the vicinity of Syria, and if their brethren in Nejd be added, they are the most considerable body of Bedouins in the Arabian deserts.—*Tr. Bom. Lit. Soc.*; *Niebuhr's Tr.*; *Ches.*

NELLORE, a town on the right bank of the Pennar river, in lat. 14° 26' 38" N., and long. 80° 1' 27" E., on the eastern side of the Peninsula of India, which gives its name to a revenue district of 8462 square miles, and in 1871, 1,376,811 inhabitants. The name is from the nelli plant, *Phyllanthus emblica*, and Ur, a town. It is surrounded S.W. by North Arcot, W. and N.W. by Cuddapah, and N. by Guntur. It lies partly in Central Carnatic, and partly in the Northern Carnatic; was acquired by treaty in 1801, and includes Ongole, and part of the Western Pollams or zamindari, viz. Venkatagiri, Choondy, Mootialpad, and Kallistry. The chief towns are Doorgaraz-Patnam, or Arnegon, in lat. 13° 59' N., 55 miles north of Madras. It was the site of the first settlement of the E. I. Co. on the Coromandel coast. Its rivers are the Pennar, Suvarnamukhi, and Gundlakama, and a salt-water creek runs several miles inland near Joo-ul-Dinna. Copper ore occurs in the Kallistry zamindari, and one block of 20 cwt. yielded 9 cwt. of copper. Red, yellow, purple, brown, and grey sandstones occur in the Podelay, Panoor, and Pedda Reddapully taluks, and at Pullaybootoo, fine-grained sandstones.

The Nellore horned cattle are celebrated, and are largely exported. *Bos Indicus* is there in a wild state. There are two uncivilised horseless races, the Yenadi and Yerkala, but the bulk of the people are Hindu Sudras, speaking Telugu. The Yenadi race in the Nellore district are estimated to number 20,000.

NELLY of sailors, or Green Bill, is the *Dio-medea spadicea*.

NELU. **SINGH**. The honey plant of the Horton plains, Ceylon. The flowers emit a fragrant perfume resembling that of new honey. It flowers once in eight years, and bees then cluster on the blossoms.—*Sirr's Ceylon*.

NELUMBium SPECIOSUM. *Willde.*

The-kyah, . . .	BURM.	Bakla kulti, . . .	PERSS.
Kamala, Padma, . . .	HIND.	Pubun, . . .	SIND.
Nilofar, . . .	PERSS.	Tamara, . . .	TAM., TEL.

The lotus, sacred, Egyptian, or Pythagorean bean, has two varieties—(*α*) *rubrum*, the Rakto-padmo of Bengal, with rose-coloured flowers, and (*β*) *album*, the Shwet-padmo, with white flowers. It grows throughout the East Indies, also in Persia, Tibet, China, North Australia, and Japan.

The leaves and flowers of the plants spring from beneath the waters, and in Kashmir the broad leaves form a verdant carpet, over which the water-hen runs. In the hot weather, the stalks are very commonly eaten by the poorer classes, and boiled in their curries. The flowers are a favourite offering at the Hindu and Burmese pagodas. The fruit is believed to have been the Egyptian bean of Pythagoras, and the flower that mystic lotus which so often occurs on the monuments of Egypt and India. The stalks are, in Hindi, called Kanwal kukri, Kanwal gatha, and Nalru bheng. The long fine filaments contained within the cells of the stem are drawn out, and the thread spun from the filament is used as the wicks of the lamps in pagodas. The lotus is highly venerated by the Hindus, but it is the more immediate attribute of Vishnu from being the prime of aquatic vegetables, and he a personification of water. It is also peculiarly sacred to Lakshmi, the wife of Vishnu, who is sometimes called Kamala, or lotus-like; it is, moreover, an emblem of female beauty. The new-blown flowers of the rose-coloured lotus have an agreeable fragrance; those of the white and yellow have less odour. In China, the nelumbium covers extensive marshes in the Eastern and Northern Provinces, otherwise unsightly and barren. The root is two or three feet long, and pierced longitudinally with several holes; when boiled, it is of a yellowish colour and sweetish taste, not unlike turnip. Its boiled roots are eaten in Kashmir as a pot-herb by the natives; in Lahore they are called Pe, in Kashmir Nadru. Taro is there used less than the nelumbium, and so are the water-caltrops and water-chestnuts; the broad leaves are used as dishes to eat from, and the flowers as offerings.

N. caruleum, Fisch., the blue-flowered sacred bean, grows in Lower Egypt and in Sind. It was held sacred in Egypt. It is a variety of *Nelumbium speciosum*.—Murray.

NEMI, a name of Krishna; he is called Arishta Nemi, the black Nemi, from his complexion. Krishna worshipped his great ancestor Budha, and his temple at Dwaraka rose over the ancient shrine of the latter, which yet stands. In an inscription from the cave of Gaya, their characters are conjoined,—Heri, who is Budha. According to western mythology, Apollo and Mercury exchanged symbols, the caduceus for the lyre; so likewise in India, their characters intermingle; and even the Saiva sectarian propitiates Heri as the mediator and disposer of the divine spark (jote) to its reunion with the parent flame; thus, like Mercury, he may be said to be the conveyor of the souls of the dead. Accordingly, in funeral lamentation, his name only is invoked, and Heri-bol! Heri-bol! is emphatically pronounced by those conveying the corpse to its final abode. The vahan (qu. the Saxon van?) or celestial car of Krishna, in which the souls (ansa) of the just are conveyed to Surya-Mandal, the mansion of the sun, is painted like himself, blue (indicative of space); Nem-nath and Sham-nath have the same personal epithets derived from their dark complexions, the first being familiarly called Arishta Nemi, the black Nemi, the other Sham and Krishna, both also meaning dark-coloured.

NEMINATH, a deified saint of the Jains. It was to counteract a fervour towards women that

the Jains of Western India set up their image of Neminath, a fact communicated in confidence to Colonel Tod by one of the sect.—*Tr. of H. ii. 45.*

NEMI-TIRTHA, a ghat, sacred to the memory of Chaitanya for his having halted and bathed here in the course of his wanderings.—*Tr. of Hind. i. p. 8.*

NEMNOOK. MAHR. Village fees, in which all the commune officers share.

NEMOOKA ROOT. HIND. Roots of several species of *Cissampelos*, efficient substitutes for Pareira.—*O'Sh.*

NEMORHÆDUS, a genus of mammals of the sub-family Caprinæ, q.v. *N. bubalina*, Jerd., the Sarao, Serou, or Sarrowa is of the Himalaya central ranges, from Kashmir to Sikkim, at 6000 to 12,000 feet. It is the serow or forest goat of sportsmen. Its appearance is between an ass and the tahir (*Hemitragus jemlaica*), with long, stout legs and a strong neck. It is very bold, and will keep the wild dog at bay.

N. goral, Jerd., the goral or Himalayan chamois of sportsmen, inhabits the whole range of the Himalaya, from Kashmir to Sikkim, at from 3000 to 8000 feet. Its horns are from 6 to 9 inches long, and have 20 to 25 annuli.

N. rubida, Blyth, inhabits the mountains of Arakan. *N. Sumatrensis*, in the Malay Peninsula and Sumatra, and *N. Swinhoii*, Gray, is of China.—*Jerdon's Mammals.*

NECERA LAPIDA. Cramer. The *Limacodes graciosa*, Welter. A moth common on the western side of Ceylon, with dark brown wings. It is produced from a caterpillar that feeds on the carissa, and stings with virulence.

NEOPHRON PERCNOPTERUS. Linn.

<i>Vultur gingianus</i> , Daud.	<i>Percnopterus Egyptiacus</i> , Steph.
<i>V. stereorarius</i> , Lapey.	
Kal-murgh, . . . HIND.	Manja tiridi, . . . TAM.
Sungra, Sunda, . . . SIND.	Tella borawa, . . . TEL.
Pitri-gedda, . . . TAM.	Sind'ho of the WAGREK.

This bird, the Egyptian vulture, dung bird, Pharaoh's chicken, scavenger vulture, one of the Neophroninæ, inhabits Europe, Africa, and Asia, is common in the Peninsula and in Central and Northern India, but is not known in Bengal. A single pair has been known to stray beyond its ordinary haunt so far as Britain. Its chief food is refuse of all kinds. A second species of this genus, the *N. pileatus*, inhabits Africa only.

NEPAL. The southern escarpment of the plateau of Central Asia is divided into two mountain ranges, the Himalaya on the east and the Hindu Kush on the west, and the valleys in this escarpment are occupied, in succession from west to east, by the alpine states and districts of Afghanistan, Kashmir, Garhwal, Kamaou, Nepal, Sikkim, and Bhutan. The Nepal State, between Kumaon on the west and Sikkim in the east, is made up of the valleys of the head-waters of three tributaries of the Ganges, the Gogra, Gandak, and Kosi, and of a corresponding portion of the Terai.

Between the valleys of the Gogra and the Kosi flows the Bhagamuttee, past the capital Khatmandu, through the beautiful central valley, 4200 to 4700 feet above the sea. In summer the thermometer seldom rises over 80° in the shade, in winter it does not fall below 20°, and at the latter season the air is clear and bracing. The views of the Snowy Range obtainable from the

valley and from the hills are unrivalled in extent and magnificence.

Nepal is an Independent State in treaty with British India. It is between British India and Tibet on the north, with Sikkim and Darjiling on its east; on its south, Purniah, Bhagulpur, Sarun, Tirhut, Gorakhpur, and Buxi; on its south-west, Oudh and Bareilly; and Kamaon on its west. It extends from lat. $26^{\circ} 25'$ to $30^{\circ} 17'$ N., and long. $80^{\circ} 15'$ to $88^{\circ} 15'$ E., is 500 miles long from east to west, and 16 miles in breadth. Area, 54,500 square miles. Population variously estimated at 2,000,000 to 3,000,000.

The surface of Nepal generally consists of valleys varying from 3000 to 6000 feet above the Bengal plains. The capital of Khatmandu is in an oval-shaped valley, 12 miles long from north to south, and from east to west 10 miles, lat. $27^{\circ} 42'$ N., and long. $85^{\circ} 18'$ E., and 4628 feet above the sea. A tradition is current that the valley of Khatmandu was at some former period a lake; it is now throughout its whole extent well watered, and is almost unrivalled in fertility. To the extreme west of Nepal lies Almora, a hill station wrested from the Nepalese in the wars of 1814-15; to the extreme east is Darjiling, another hill station, used as a sanatorium. The breadth of the mountainous belt immediately north and east of Khatmandu is estimated at from 30 to 40 miles, and its higher parts rise to the level of perpetual snow. Among its lofty summits is Mount Everest, the highest known peak in the world (29,002 feet). On the south is the Terai belt of low level land. The word signifies marshy lands, and is sometimes applied to the flats lying below the hills in the interior of Nepal, as well as to the level tract bordering immediately on the British frontier.

The legendary history of Nepal, like that of Kashmir, commences with the desiccation of the valley, for ages full of water, by Naia Muni, whence the name of the country Naipala, whose descendants swayed the country 500 years. The first authentic history is B.C. 844. Then the Kerrat tribe of eastern mountaineers, B.C. 646. Then the Suryavansa race of rulers B.C. 178. The Ahir began in A.D. 43. The Neverit dynasty was restored in A.D. 470, and one of this dynasty, Raghoba deva, in A.D. 880, introduced the use of the Samvat era into Nepal. In the Newar year 731, A.D. 1600, Jaya Eksba Mall (or Jye Kush Mull) divided Patan, Khatmandu, Banepa, and Bhatgaon between his daughter and three sons, and Ranjit Malla, one of the Bhatgaon dynasty, in A.D. 1721 formed an alliance with the Gurkha, which ended in his own subversion, and finally in that of all Nepal. The Gurkhalis, descended from the Udai-pur Rajputs, had occupied Kamaon and Noa kot for six or eight centuries prior to their conquest of Nepal in A.D. 1768.

British political relations with it date from the invasion of the valley by the Gurkha race, under Raja Prithi Narain. In 1767, the Newar raja of Khatmandu, being hard pressed by the Gurkha, applied for assistance to the British Government. Aid was granted, and Captain Kinloch was despatched with a small force in the middle of the rainy season. He was, however, compelled by the deadly climate of the Terai to retire. The Gurkha chief, meeting but a feeble resistance, overran Nepal, and extinguished the Newar dynasty, and was eventually recognised by the

British Government as raja of Nepal. For several years previous to 1792, the Gurkha power had been extending their conquests in the direction of Tibet. They had advanced as far as Digarchi, the Lama of which place was spiritual father to the emperor of China. Incensed by the plunder of the sacred temples of Digarchi, the emperor of China despatched an army to punish the Nepal raja, and when within a few miles of their capital the Gurkha submitted unconditionally to the Chinese commander, who imposed a tribute and triennial mission to Peking, besides restitution of all the booty taken at Teeshu Lumbu, and he took hostages for the performance of these stipulations. The raja of Sikkim was at the same time taken under Chinese protection. Checked towards the east by these events, the Gurkha extended their dominion westward, subjugating Kamaon, Srinuggur, and all the hill country to the Sutlej. When Lord Hastings commenced his administration, their dominion extended as far as the river Tista to the east, and westward to the Sutlej, thus occupying the whole of the strong country in the mountainous tract which stretches on the northern borders of India, between that and the highlands of Tartary. They had acquired these territories, during the preceding 50 years, from many disunited hill chiefs whom they dispossessed, exterminating the families as each raja fell before them.

Muhammadan invaders began the conquest of Hindustan in the 11th century, from which date up to the middle of the 18th century many Hindu chiefs with their followers sought refuge in Nepal, and intermarried with the Newar, Gurung, and Magar. The descendants of these marriages are styled the Khas; they claim to be considered of the Kshatriya caste; they are the military nobility of Nepal. The Gurkha had a small Hindu State, existing from the 10th or 12th centuries, to the westward of Khatmandu, and claiming descent from the maharana of Udaipur. In 1768, Jye Kush, the 6th king of the Mall dynasty of Nepal, during troubles in his kingdom, called in the aid of Prithi Narain, the Gurkha chief, who conquered the three kings of Bhatgaon, Khatmandu, and Lalita Patan. From that time up to the year 1814, the Gurkha continued aggressive, annexing all the surrounding states; and in consequence of inroads on British territory, war between the Gurkha and the British was formally declared on 1st November 1814. In an arduous campaign, in which the Gurkhas fought most bravely, the British were unsuccessful, and General Gillespie fell at a hill fort; but the Nepalese were subsequently defeated by Sir David Ochterlony, and by the convention of Almora Nepal ceded all the conquests they had made to the west of the Kali branch of the Gogra. Previous to this war the Gurkhas had extended their conquests westwards as far as the Sutlej. By the 5th article of the treaty of 1815, the Nepalese renounced all claim to the countries west of the Kali, and the British were left in possession of the whole tract of hills from the Gogra to the Sutlej. Kamaon and the Dehra Doon were annexed to the British dominions, and the rest of the territory, with the exception of Subathu, Raengari, Sundoch, and a few other military posts, was restored to the hill rajas from whom it had been conquered by the Nepalese.

Towards the close of the 18th century the kings of Nepal had fallen into a titular position, the

government being carried on by the ministers, who had assumed the character of the *Maire du Palais*. Towards the middle of the 19th century, Jung Bahadur rose to power. On the 18th of May 1845, Mataber Singh, the minister, was summoned to an audience with the king at the palace. On entering the room where he expected to find the king, he was killed by a rifle shot fired from the *zanana* gallery at the end of the room. His body was then thrown out of the window, and dragged away by an elephant to the banks of the Bhagmuttee at Pashupati. Next morning Jung Bahadur reported the circumstance officially to the Resident. Subsequently it appeared that Mataber Singh had been killed by Jung Bahadur at the instigation of the queen.

On the 15th of September 1846, the Resident (Mr. Colvin) was surprised by a visit at midnight from the king, who informed him that a fearful tragedy had been enacted in the city. The rani, after the murder of Mataber Singh, may be said to have been the actual ruler of the country. In the coalition ministry she had one especial friend, Guggun Singh. This noble, on the night of the 14th of September, was shot in his own house while he was in the act of performing his devotions in a private room. The rani then insisted on the king assembling all the ministers and nobles in council to find out the assassin. Fath Jung and his colleagues hurried to the place of meeting at the kot near the palace. Here were assembled the rani, Jung Bahadur, his band of brothers, and his body-guard, armed with rifles. The queen's party was carefully arranged and heavily armed, whereas the members of council came as they were summoned, in a hurry, each from his own house, and with no weapons but their swords. In a few minutes 32 of the nobles and upwards of 100 of the lower ranks were shot down. The king, alarmed by the noise of the struggle, mounted his horse and rode off to the Residency. On his return, within an hour, he found the gutters around the kot filled with the blood of his ministers, and what little power he possessed in the state was gone for ever. On the 2d of November, 13 more of the sirdars were put to death, and in December the king fled from the country to Benares. Jung Bahadur became virtually ruler of the country, and he visited England in 1850. The assassination of Guggun Singh, and the massacre of the influential chiefs, in 1846, had paved the way for the rise of Jung Bahadur to the office of prime minister; he was created maharaja of Nepal, and invested with the perpetual sovereignty of two provinces. He effected the marriage of a son and two daughters into the royal family of Nepal.

By the treaty of 1815, a British officer was to reside at the capital, and some of the ablest and most conciliatory servants of the Indian Government have since been there. Mr. Gardener, 1816-1829; Brian Hodgson, 1831-1843; Sir Henry Lawrence, 1843-1847; Mr. J. R. Colvin, Major Ramsay, 1849-1863; and Dr. Wright and Oldfield have been Residency surgeons.

All through the Afghan war of 1838-43, the darbar at Khatmandu was in constant communication with that of Lahore, and with the Sind sirdars and Mahratta chiefs. Between 1838 and 1840, 23 secret missions from Khatmandu to Lahore and other parts of India were intercepted, through the exertions of Sir George Clerk at

Ambala, and Mr. Hodgson at Khatmandu. But on Sir Jung Bahadur succeeding to power, he ruled Nepal with great ability and success, until his death, suddenly, in the Terai in the spring of 1877. During the mutiny of 1857, and the subsequent campaigns, Jung Bahadur assisted the British in the re-occupation of Gorakhpur, the re-capture of Lucknow, and the subsequent capture of the rebels who infested the Terai. In consideration of these services he was created a Knight of the Grand Cross of the Bath, and under a treaty (No. I.V.), concluded on the 1st November 1860, the tract of territory on the Oudh frontier, which had been ceded to the British Government in 1816, was restored to Nepal.

The population consists of Mongoloid tribes who have immigrated from the Tibetan border, and of Aryan refugees from the plains of India. West of the Kali river, almost all the inhabitants claim a descent from Hindu colonists. They accordingly consist principally of Brahmans and Kshatriyas, with their various subdivisions. East of the Kali, the Magar occupied the lower hills in the western parts, and are at present enlisted by the Gurkha sovereigns, composing a great majority of their troops; the Gurung, a pastoral tribe; the Jariyas; the Newars, an industrious people, following agriculture and commerce, and more advanced in the mechanical arts than the other mountain tribes; the Dhenwars and Mhanjis, the husbandmen and fishers of the western districts; the Bhutias; the Bhanras, which branched off from the Newars; and to the eastward, some districts of the Nepal dominions are inhabited by the Limbuas and Nacarkuti tribes.

Mr. Hunter gives the Nepal races as under:—

Nepal, East to West.—Serpa, Sunwar, Gurung, Murni, Magar, Khaksya, Pakhya, Newar, Limbu. The language of the Magar, Gurung, and Newar is chiefly Tibetan.

Kiranti Group, East Nepal.—Kiranti, Rodong, Rungchenbung, Chhingtangya, Nach-hereng, Waling, Yakua, Chouraya, Kulungya, Thulungya, Babingya, Lohorong, Limbichhong, Balali, Sangpang, Dumi, Khaling, Dungkali.

Broken tribes of Nepal.—Darhi, Dhenwar, Pahari, Chepang, Brahmu, Vayu, Kuswar, Kusunda, Tharoo.

The martial classes are the Khas, Magar, and Gurung, each comprising a very numerous clan or race variously subdivided.

Khas, *Khus*, or *Kus* is the usual title of the dominant race, and *Sah* or *Sahi*, the tribal title of the royal family. They are descendants of immigrant Hindu Rajputs with Nepal women. The Khas possess a pre-eminently masculine energy of character and love of enterprise, and have a free, sometimes a noble carriage. The Khas form one of the martial classes, and hold jaghir lands on military tenure. This and other two tribes take the name of Gurkha, which the Chinese pronounce Ku-ru Ka-li. It is derived from the eponymous deity of the royal family, Gorakhsuwanth or Gorkhananth, whom Brahmans claim to be a form of Siva. Gorkha town, the original seat of the Khas, is 60 miles W.N.W. of Khatmandu. They have 13 divisions, and 116 clans.

In the west of Nepal dwell the *Gurung* and *Magar* tribes, small, with features of an extreme Mongolian type, full of martial ardour and energy. In feature and figure, the true Gurkha are always

remarkable, from their broad Chinese or Tartar-like physiognomy, the small eyes, flat nose, and meagre whiskers, as well as the stout, square make and sturdy limbs. The Magar have peopled the lower Gogra valley. The men are of great bodily and mental vigour. The Gurung are an energetic and pastoral race. It has been calculated that there are in Nepal no less than 80,000 Dakhriah, or soldiers off the roll by rotation, belonging to the Khas, Magar, and Gurung tribes. Their energy of character, love of enterprise, and freedom from the shackles of caste, are conspicuous, and, in the opinion of competent judges, they are by far the best soldiers of India. The Government of British India since 1840 has been employing them in their native army.

The *Newar* belong to the Indo-Tibetan stock, and profess Buddhism. They are confined almost to the valley of Nepal. They are divided into several orders, according to trades and occupations. They are peaceable agriculturists, and skilful workers in iron, copper, brass, and bell-metal; the chief seats of industry being Lalita Patan and Bhatgaon. Their copper, brass, and bell-metal vessels are exported to Tibet. *Newar* women, as well as the men of the hill tribe of Magars, weave two sorts of cotton cloth, partly for home use and partly for exportation. Those who are not very poor wear woollen blankets, which are manufactured by the Bhutias, who wear nothing else.

The *Bhama* are a sort of separatists from the *Newar*, supposed to amount to 5000. They have their heads like the Bhutia, observe many of the religious rites as well as civil customs of the latter, in a dialect of whose language they are said to preserve their sacred writings. The lands of Nepal proper are cultivated almost without exception by *Newars*. The *Parbatya* tribe, called *Dherwara*, cultivates the western lands at Nurkale, etc. The *Dherwar* and *Margi* are the husbandmen of the western districts. *Parbatya* is a general name given in India to the mountain Hindus of Nepal, and to their language.

The *Elthariah* are the descendants, more or less pure, of Rajputs and other Kshatriyas of the plains, who sought refuge in these mountains from the Muslim, or merely military service, as adventurers. The *Elthariah* speak only the Khas language.

The *Murmi* or *Tamar* are a very numerous tribe of Tibetan origin, dwelling in all parts of the Nepal mountains, from the Gandak river, 20 miles W. of Khatmandu, to the Mechi river. When in smaller numbers they are to be met with in the Sikkim country as far east as the Tista. The great bulk of the tribe, however, is to be found between the valley of Nepal and the Dood Kosi. *Murmi* are taller, coarser in their feature, and more Tibetan in their temperament, than the remaining tribes, and appear to be Tibetan, or more Tibetan than Gangetic. Mr. Hodgson thinks that they do not notably exceed the Gangetic stature. Of all the tribes on the S. side of Himalaya, they have least changed in habits. They settle on the mountains at elevations of 4000 to 6000 feet, living in cottages made of stone and thatched with grass. They are altogether a pastoral and agricultural people, rearing flocks of sheep and goats near the snows, and cultivating Indian corn and murwa (*Eleusine coracana*) at the greatest elevations

capable of producing them. They are Buddhists of the Bhutia and Lepcha Lama sect. Their priests are not restricted to celibacy. They have several families or clans. They bury their dead on the tops of mountains, and raise tombs of earth and stones, covered by a slab of stone, on which the name is engraved.

The *Kiranti* and *Limbu* occupy the Nepalese districts of the great valley (the basin of the Kosi). The *Kiranti*, *Kirata*, or *Kichak* are the classical *Cirrhatae*. They are said to be also called *Khombo*. The *Kiranti* are often included in the *Limbu*, whom they much resemble in appearance.

The *Jarya* tribe are south of the Gurung, with whom they intermarry. They are Hindu in creed and manners.

The *Haiyu*, the *Chepang*, and the *Kusunda* are three Bhot tribes who dwell amid the dense forests of the central region of Nepal, to the westward of the great valley. They have no apparent affinity with the civilised races of that country, but live in huts made of the branches of trees, subsisting on wild fruits and the produce of the chase, snaring wild animals. They are constantly migratory. They are all darker and more slender than the tribes around them, and in form and colour greatly resemble some of the races in the plains, particularly the *Kol*.

In Central Nepal also are the *Pahri*, the *Darahi* or *Dorhi*, *Denwar*, and *Paksya*.

The *Thakuri* are descendants from former princes.

Sood, in Nepal, along the northern frontier of British India, and in the Panjab, are a mercantile body, dry grocers. They do not eat beef, but use other animal food, game, and fish.

Sunwar or *Sanwar*, a tribe in Nepal, dwelling below the mountain peaks of Gosainthan, to the north of the Magar and Gurung, and near and among the cis-nivean Bhutia race, dwelling in the central and temperate parts of the mountains. They are among the principal alpine tribes of the Sub-Himalayas, between the Kali, where the aboriginal tongues are merged into the Prakrit, and the Dhansri, where they begin to pass into monosyllabic-tongued races of Indo-Chinese origin.

Tharoo, a migratory forest race in Nepal and along the base of the Himalaya mountains, between Chumparun and Khatmandu, as far west as the river Gandak, which they occupy along with the *Boksu* at the foot of, but quite external to, the Himalaya. They cultivate a little, and live and thrive in the most malarious situations, and are invaluable in effecting forest clearances.

Just as the *Tharoo* inhabit the Terai, the *Kuswar* and *Bhutia*, called the *Manjhi*, the *Kumha*, *Bhramu*, *Denwar*, and *Durre*, inhabit with impunity the lowest and hottest and most malarious valleys of Nepal, dwelling in small villages or in scattered cottages, following the avocation of potters, agriculturists, fishermen, and ferrymen. They have dark-coloured skins, slender forms, oval faces, elevated features, and peculiar dialects.

The *Dharmi*, a dancer caste of Nepal, attend at the annual festival at which buffaloes are sacrificed, and drink copious draughts of the warm blood of the victims.

The *Dherwar* and *Margi*, the husbandmen and fishermen in the western districts. The *Dherwar* cultivate the western lands at Nurkale, etc. *Yakha*, *Mungar*, *Brahman*, *Khumbu*, *Nimbu*,

chiefly cultivators. The Gallia rear buffaloes chiefly; the Kani, blacksmiths; the Sarki, tanners; and the Domai, tailors (Dome).

The Brahmans of Nepal have 94 tribes. Eastward of Nepal, some districts are occupied by the Limbu, the Naggankot, and others. The Limbu are also called Yakthumba.

About four-fifths of the people are professing Buddhists, and the remainder Hindus; but Hinduism has succeeded in materially corrupting the purity of the numerically predominant creed. Nepal presents the curious spectacle of Buddhism, with castes, distinctly polytheistic, addicted to bloody sacrifices, and, in part at least, practising the obscenities of the Tantrika system. There are about 2000 Buddhist temples in Nepal.

Languages.—About 40 tribes, with as many different languages, inhabit Nepal, Sikkim, and Bhutan. In Nepal is a perfect maze of dialects. Beginning from the Singhaleela range, we find Lipbu or Kiranta, which goes west as far as the Dood Kosi river, in long. 86° 44' E. Sherwill found the Gurung in the higher parts of Singhaleela, closely connected with whom are the Murmi. Along the lower hills are the Magar, who extend to the west as far as Palpa. In Central Nepal are the Newar, Pahri, and Brahmo, a dialect of Magar, also the Darahi or Dorhi, Denwar, and Pakhya. The Parbatya or Paharia dialect of Hindi is spoken all over Nepal, and is the court language. West of this again comes the Palpa, then the Thakaya, Sunwar, and Sarpa, the dialects of Kamaon and Garhwal, which carry us on to the Milchan of Kanawar; the Hundisi and Tibarskad, north of it, speak the Khas language. The language of the Magar, Gurung, and Newar is chiefly Tibetan.

The Gurkha had a language of their own until they adopted Brahmanism, when they partially adopted the Hindi, with which their own language became mixed.

Produce.—The mountainous parts of Nepal are rich in mines of iron and copper. The copper is of a superior kind. Lead mines, yielding a proportion of silver, are in Moulik. Small quantities of gold-dust are found in the Gandak. In addition to the sal timber trees and Bechiacouri pine, are the sissoo, the Setti-sal, the Phullamical, an iron-wood, the Kalikset, a black wood, the Sajk, Burra, Sumi, Moolta, and a small quantity of ebony. These woods constitute in a great measure the commercial wealth of Nepal. Wood merchants congregate at the southernmost point of the forest, near the river Gandak, because of the facility presented by that river of floating the timber to Calcutta. The bark of *Photinia dubia* or *Mespilus Bengalensis* is used for dyeing scarlet.—*London Times*; *Smith's Nepal*; *Kirkpatrick's Nepal*; *Bogle's Tibet*; *Oldfield's Sketches of Nepal*; *Munshi Shew Shunker Sing Pandit Shri-Gunawan's History*; *Dr. A. Campbell in J. A. Soc.*; *Thomas' Prinsep*.

NEPENTHACEÆ. *Lindl.* The pitcher-plant tribe, a natural order of exogenous plants inhabiting the damper and warmer parts of S.E. Asia, and having, in the place of leaves, large hollow bodies furnished with a lid, and containing water secreted from a peculiar glandular apparatus with which they are lined. These bodies, or pitchers, as they are called, appear at the end of a leafy tendril-like expansion of the bark, and are con-

sidered to be a hollow state of the apex of the petiole of a leaf, while the lid that closes them is regarded as the blade. The inner surface of the pitcher is glandular, and, during active vegetation, secretes the fluid, in which insects are frequently drowned. Some species of Borneo bear pitchers 12 inches long, and 6 inches in diameter, large enough to hold two quarts of water (*N. Rajah, Hooker*, of Borneo); *Nepenthes Edwardiana* is 18 inches long, and 2 to 3 inches in diameter. Other known species are *N. Northiana, Hooker*, of Borneo, *N. distillatoria, L.*, *N. levis, N. phyllamphora, N. gymnamphora*, of Java, *gracilis, hirsuta, Lowii, Veitchii*, and *villosa*. *N. ampullacea, Jack.*, and *N. Rafflesiana, Jack.*, grow in Singapore. One species grows in Ceylon. The Dutch call this plant *Kannekens kruid*, or the can-fruit, from its singular form. They are insectivorous plants. The urns of one species are armed with two sharp and strong spines. Its pitchers always contain insects of various kinds, and the spines prevent birds and insect-hunting animals, such as the tarsier, from removing these insects from the urns.

NEPENTHES of Homer (*Odys.* iv. l. 221), supposed by some to have been hemp, *Cannabis sativa*. Opium has also been supposed.—*Powell*, i. p. 321.

NEPETA CILIARIS. *Benth.*

N. leucophylla, Bl. | *Zufa yabis*, . . . **PANJ.**

It occurs in the Panjab Himalaya at from 4000 to 8000 feet, and is given in sherbet for fever and cough.—*Dr. J. L. Stuart*.

NEPIH, the divine spirit, a god of the Egyptians. See *Osiris*.

NEPHELIUM, a genus of plants of the natural order Sapindaceæ. Under the Canarese and Mahratta names *Andgeee* and *Yaroo*, *Dr. Gibson* mentions a *nephelium* tree growing in Canara and Sunda, above the ghat, chiefly at the Nilcoond and southern jungles. Wood said to be serviceable in house-building. *Mr. Thwaites* notices in Ceylon *N. bifoliatum, Thw.*, a moderate-sized tree on the Lower Badulla road from Kandy, at no great elevation, which flowers in April. *N. eximium*, a large tree of the Central Province, at an elevation of 1000 to 2000 feet, flowers in May and fruits in July; and *N. erectum, Thw.*, also of the Central Province, up to an elevation of 3000 feet. *N. hypoleucum, Kurz.*, and *N. rubescens, Hiern.*, are trees of Burma. Three species are celebrated for their fruits, viz. *N. litchi, Don*, the litchi of S.E. Asia; *N. longanum*, the longan of China; and *N. lappaceum*, the rambutan of the Malay Peninsula. *Dr. Mason* mentions a small inferior *Tenasserim* fruit as the red *nephelium*, eaten by the natives only, though bearing its fruit in bunches like the litchi. One of the indigenous *nephelium* trees of *Tenasserim* bears a fruit whose subacid is very agreeable to the palate, and much resembles that of the rambutan so famous at Malacca. Malays say it is the wild rambutan. Other species known are *N. rimosum, rubrum, verticillatum*, and *variabile*. *N. stipulaceum, Bedd.*, a handsome middling-sized tree, rather rare in the moist forests in Malabar and on the Animallays; the wood is strong and serviceable.—*Mason; Thur.* i. p. 57; *Voigt; Gibson*.

NEPHELIUM LAPPACEUM. *Linn.* The rambutan fruit is produced in bunches terminally. The pulp, which surrounds a seed of the

NEPHELIUM LITCHI.

size and flavour of a cob-nut, is transparent, and of a delicate sweetish-acid flavour. It is in appearance not much unlike the fruit of the arbutus, but larger, of a brighter red, and covered with coarser hair or soft spines, from whence it derives its name. The part eaten is a gelatinous and almost transparent pulp surrounding the kernel, of rich and pleasant acid.—*Low's Sarawak*, p. 73; *Marsden's Sumatra*, p. 101.

NEPHELIUM LITCHI. W. and A.

<i>Dimocarpus lichi</i> , Lour.	<i>Euphoria lichi</i> , Desf.
<i>Scytalia lichi</i> , Roxb.	
Kayet mouk, . . . BURM.	Kaleng ken, Lichi, MALAY.
Tan-li, Lichi, . . . CHIN.	

This native of China is an evergreen, and grows to a large size. The fruit is of a dark brown colour, and contains a glutinous, yellow, sweet sort of pulp. In British India it is not much prized, perhaps from its inferior quality to the Chinese fruit, which is much esteemed. The fruit ripens in March and April. The sun-dried fruits are largely exported from Foh-kien and Canton provinces, being in demand as a marriage present or dessert at feasts.—*Riddell*; *Smith*.

NEPHELIUM LONGANA. Camb.

<i>Dimocarpus longan</i> , Roxb.	<i>Scytalia longana</i> , Roxb.
<i>Euphoria longana</i> , Lamk.	
Ashphal, BENG.	Longan, MALAY.
Kayet mouk, . . . BURM.	Puna, MALLEAL.
Mal aheota, CAN.	Morre, SINGH.
Lung yen, CHIN.	Puvati, TAM.
Wumb, MAHR.	

A moderate-sized tree of the Peninsula of India, the Khassya Hills, the Malay Peninsula, Cochin-China, and China, having a straight trunk and fine globular head. It occurs in Coimbatore, is rare in the Bombay Presidency, being confined to their race or greenwood jungles. In China it grows in Foh-kien, Kwang-tung, and Kwang-si. It is more easily grown than the litchi. The fruit is globular; it is not equal to the litchi. The wood is white, hard, and close-grained.—*Wight*; *Gibson*; *Voigt*; *Smith*; *Gamble*.

NEPHRITE, jade, or axe-stone, the Yashm or Sang-i-yashm, so much valued in China, is found in Central Asia, New Zealand, Western America, Corsica, the Hartz mountain, and Egypt. It is the yu of the Chinese. It is highly prized by the Maori race, whose choicest weapons and ornaments are carved out of it by means of friction of flint and wet sand, while the holes are generally pierced by a drill of a pointed piece of hard wood. The following is an analysis by Kastner:—Silica, 50.50; alumina, 10.00; magnesia, 31.00; oxide of iron, 5.50; oxide of chromium, 0.05; water, 2.75. In China it is carved into images, and worn as a charm. It was supposed to be good in diseases of the kidney; hence its Chinese name.—*Smith*.

NEREOCYSTIS LUTKEANA, one of the algae, forms dense marine forests in Norfolk Bay and all about Sitcha. Its stem resembles whiplcord, and is often 300 feet long, and terminates in a large air-vessel or 7 feet long, and crowned with a bunch of dichotomous leaves, each 30 or 40 feet in length. The sea-otter when fishing rests on the colossal air-vessels of this giant seaweed, and its stems furnish fishing-tackle.—*Hartwig*.

NERIUM (from *νῆρος*, humid, the habitat of the species), a genus of plants belonging to the natural order Apocynaceæ or dogbanes. The whole family are poisonous.

NEST.

NERIUM ODORUM. Solander. Oleander.

Kaner, Kharuba, . . . HIND.	Arali, TAM.
Jovana arali, . . . MALLEAL.	Ghenneru kusturi, . . . TEL.
Khar-zahra, PERS.	patte, TEL.
Karavera, SANSK.	Gandera, TRANS-INDUS.

A sweet-scented oleander, grows throughout India, Sind, Baluchistan, Afghanistan, Siwalik Hills, and the Himalaya, and is often confounded with the N. oleander. Its varieties have flowers of a red, crimson, and rose colour, and are double and single. The root and root-bark are used medicinally, but need great care, as they are virulently poisonous. The leaves also are used. In the Dekhan the double red and white grow wild on the banks of rivers, bearing both white and red flowers; and by budding the red colour on the opposite one in several parts of the same stalk, a very pretty appearance may be given to the shrub. Amongst Hindus its flowers are sacred to Siva. The single white is called in Hindi safaid-kurpud, the single rose-coloured lal-kurpud, and the beautiful large double rose variety is called padma-kurpud. The yellow congener is called the exile, and was introduced from America. The root contains a yellow poisonous resin, tannic acid, wax, and sugar, but no alcoholoid or volatile poison. The bark and flowers contain the same poisonous resin, which is most abundant in the liber or inner bark; it is very soluble in carbonate of soda, and, though not volatile, is carried over mechanically when the plant is distilled with water. The root is so frequently resorted to for the purpose of self-destruction by the women of India when tormented with jealousy, that it is proverbial among the females of the hills, when quarrelling, to bid their opponent go and eat of the root of Kaner. A man about 35 years old swallowed an ounce of the expressed juice, and immediately fell senseless on the floor. He did not recover, even by vigorous treatment, from a state of collapse, under 40 hours, and during that time had constant spasmodic seizures of the whole body. Camels eat it, but nearly all die. The stalks are said to be used as hookah tubes. The powder of the dried leaves is given in colic, and used as an eriline. A wash is made from the bark, which is used in itch and for destroying vermin. Externally the leaves and bark have been used (and sometimes even internally) as a remedy in herpes and itch. The rasped wood is employed as ratsbane. The wood itself is used by some eastern nations as a material for gunpowder charcoal.—*Roxb.*; *Powell*; *Eng. Cyc.*; *Riddell*; *Irvine*; *Ainslie*; *Honig*; *O'Sh.*; *Munon*.

NERIUM OLEANDER. Linn. Kiah-chuh-t'au, CHIN.; *Νηριον Ροδοδενδρον*; *Ροδοδαφνη*; Khur-zahra. Oleander, rose bay, spurge laurel, a plant of the Levant, is equally poisonous with N. odorum.

NESA KULA. KARN. A caste of fowlers, bird-catchers.

NEST.

Ghonsala, Ghar, . . . HIND.	Nido, SP.
Nido, Nidio, Nidiata, It.	Nido, TEL.
	Yiwah, T'ARK.

The nests of birds greatly vary. Those of the weaver bird, tailor bird, honey-sucker, and oriole are made with much art. The edible nest of the colocalia swallow is formed of inspissated saliva in caverns; swallows, swifts, bee-eaters, and weaver-birds build in companies; certain ducks breed on cliffs or trees, and they must carry their young to

the water, though this has not been observed. The Megapodidæ gallinaceous birds, found in Australia, its surrounding islands, and as far as the Philippines and the N.W. of Borneo, bury their eggs in sand, earth, or rubbish, and leave them to be hatched by the sun or by fermentation. They have large feet and long curved claws, and most of them rake together rubbish, dead leaves, sticks, and stones, earth and rotten wood, until they form a mound often 6 feet high and 12 feet across, in the middle of which they bury their eggs. The eggs are as large as those of a swan, and of a brick-red colour, and are considered a great delicacy. The natives are able to say whether eggs be in the mound, and they rob them eagerly. It is said that a number of these birds unite to make a mound, and lay their eggs in it, and 40 or 50 are found in one heap. The mounds are found in dense thickets. The species of the Megapodidæ in Lombok is as large as a hen, and entirely of a dark hue, with brown tints. It eats fallen fruits, earth-worms, snails, and centipedes, but the flesh is white, and when properly cooked well flavoured.

Mr. Allan Hume says the nests of the white scavenger vulture (*Neophron ginginianus*) of India are clumsy, ragged stick structures,—platforms slightly depressed towards the centre, loosely put together, and lined with any soft substance they can most readily meet with. Old rags are a great stand-by. In many parts of the country, wayfarers as they pass particular trees have a semi-religious custom of tearing a strip off their clothes to hang thereon. The tree (usually a babul) soon becomes loaded with ags and tatters. These are a perfect godsend to the Neophrons of the neighbourhood, who rob these rural shrines of their trophies by the score. Sometimes the rags of various colours are laid out neatly in the nest, as if an attempt had been made to please the eye; sometimes they are irregularly jumbled up with the materials of the nest. Cotton-wool, old and dirty,—stolen perhaps from the old rizaïs, or padded coverlids, thrown with half-burnt dead bodies into the river,—occurs occasionally in great lumps in the nest. And he had several times found nests lined entirely with masses of human hair, which, in a country where near relatives shave their heads as a part of the funeral ceremonies, often lies thick in the environs of villages and towns. Sometimes the birds line their nests with green leaves, much as *Eutolmactus Bonelli* and many other eagles do. In size the nests vary from 2 feet to 3 feet in diameter, and from 4 inches to 10 inches in depth. Nominally they lay two eggs, but he had repeatedly found birds incubating a single egg; twice he found three eggs in the same nest, but in each of these latter cases one of the three eggs was much smaller and feebler-coloured than the other two.—*Wallace*, pp. 154, 156.

NESTORIUS. A Christian sect in Kurdistan and Mesopotamia is said to be called from Nestorius, who was Bishop of Constantinople in the 5th century, and whose doctrines were spread with much zeal through Syria, Egypt, Persia, India, Tartary, and China. They number about 200,000 in Persia, Turkey, and Kurdistan. They do not accept the view that describes them to be followers of the creed of Nestorius, and claim to be Kaldi, descendants of the Chaldeans, and state

that their name is derived from Nassara (Nazarene) or Nazareth. Turks and other orientals call them Nasrani.

Colonel Yule, in Cathay and the Way Thither, says that so late as the 14th century a Nestorian bishopric existed in the neighbourhood of the modern Hazrati Turkestan, north of Samarcand, and that the sect had been established in that district since the 4th century. In Persia the sect inhabit the district of Urumia, in Azerbaijan, and the mountains to the south, occupying the Hakkian chain in Kurdistan. In Upper Mesopotamia there are many Nestorians, some of whom have become Roman Catholics, and Jacobite as well as Roman Catholic Syrians. Their priests are styled Kieshish and Abuna, and are hereditary office-holders. Their patriarch is designated, he says (p. 272), Mar Shumun? He dwelt at Kojamis, near Julamerk, in the heart of the Kurd mountains. They live amongst the Kurds, and are wild, brave, and grasping. The Kurds, about the year 1870, attacked and massacred a large body of the Christians. Nestorian Tiyari women and girls bathe unrestrained in the presence of men in the streams that pass their doors.

Nestorius was patriarch of Constantinople, and in 431 was expelled and denounced as a heretic by the Council of Ephesus, for refusing to call the Virgin Mother of God, and sundry other so-called heresies. Nestorian doctrines are more like those of the Protestant Church than other Eastern Christian systems. They have no image or relics, no convents or nunneries; they acknowledge no purgatory, no transubstantiation, no auricular confession; and their notions of the divinity of the Saviour are scriptural and accurate.

The Nestorian faith, after being condemned in the west during the first half of the 5th century, spread rapidly in the east, and prevailed in Persia and Asia Minor. American missionaries have established themselves at Urumia on the frontier of that region, and are now zealously employed in educating and instructing many of the younger members of this Christian sect.—*Colonel Chesney; Wagner; Yule; Layard*, i. p. 196; *MacGregor*, iv. p. 343; *Vambery*, p. 61; *Grant*.

NET.

Rets, Filets,	FR.	Pukat, Panauk, MALAY.
Netz,	GER.	Red, SP.
Jhal, Jala,	HIND.	Agh, TURK.
Rete, Reticella, Ragma, IT.		

Net-making is the art in which the fabric is required to be transparent, but in which the fibres are decussated and retained in their places by knots, that the interstices may retain their form and size, and prevent objects from escaping; it seems to have been known in the earliest ages in Egypt, and is practised with the greatest skill throughout the East Indies in great variety, their nets being from a few to 50 fathoms in length. Those of Singapore are made with cotton, and others with the fibre, which is very similar to, if not identical with, that forming the so-called China grass; rami fibre, trap fibre, cotton, and hemp being all employed in net-making. Nets are woven also of hempen thread, and boiled in a solution of gambier (*Uncaria gambier*) to preserve them from rotting. The fishing-smacks which swarm along the Malay coast go out in pairs, partly that the crews may afford mutual relief and protection, but chiefly to join in dragging the net fastened to their boats.

In the shallows of rivers, rows of heavy poles are driven down, and nets secured to them, which are examined and changed at every tide. Those who attend these nets, moreover, attach to their boats scoops or drag-nets, so loaded that they will sink and gather the sole, ray, and other fish feeding near the bottom. Lifting nets, 20 feet square, are suspended from poles elevated and depressed by a hawser worked by a windlass on shore; the nets are baited with the whites of eggs spread on the meshes. There are also casting-nets and sieve-nets. In hunting and fowling, also, nets are in use to a considerable extent, and the clap-net seen in use in Sind and elsewhere is identical with that depicted on the Egyptian monuments for catching wild-fowl. Job xix. 6; Psalm cxl. 5; Isaiah li. 20.

For sea-fishing in Sind a suitable net costs £40 or £50, and does not last above a year. A sea-going fishing-boat costs about £100, and ought to be serviceable for several seasons. Stake-nets are extensively constructed off the coasts of Sind, Bombay, and the Malay Peninsula. In Sind and Bombay the stakes are usually the trunks of some species of palm trees, and by joining are made up to 100 feet in length. Those near land are placed at right angles to the shore, and pressed perpendicularly into the mud to a depth of 12 feet or more, and 25 feet apart. Nets of a bag or funnel shape, often 40 yards long, are attached to them, and the currents sweep the fish into the bag. But the banks far out at sea are similarly utilized, the fishermen attending at each change of the tide to empty the capture, and reverse the funnel-net. The dip-net is worked from a framework fixed on the bank of a tidal river, or from a boat or platform. The purse-net, lave-net, and bag-net are fixed on bamboo frames, and dragged up narrow or shallow pieces of water. The cast-net is easily carried from place to place, and, being thrown horizontally with a centrifugal motion, it spreads out over a considerable surface. Several of these are occasionally joined together to form a drag-net. Cones and traps made of bamboo are in much request. The Chinese nets are the bag, casting, flat sluice, trawl, and stake nets, and the sieve; also nets for shrimps and shell-fish.—*Royle, Arts, etc., of India*, p. 505.

NETHERLAND INDIA. Netherland is a name in use for the European country called Holland, occupied by the Dutch people, who have large possessions in the Eastern Archipelago, which are the empire of Netherland India. In 1596 the Dutch, under Houtmann, first arrived off Bantam, and found the native king at war with the Portuguese. They lent him aid, on condition of having land allotted for a factory. In 1610 the Dutch fortified the village of Jakatra, which they named Batavia. In 1619 this was destroyed, but it was then rebuilt by Mr. Bolt, the Dutch Governor-General, and this was the beginning of the present town of Batavia. Java up to the 13th century was partly Hindu, partly Buddhist, partly Muhammadan; but in the 15th century Muhammadanism took the lead, and in 1475 a Muhammadan prince took the throne on the overthrow of the great kingdom of Majapahit, which had dominion over the whole of Java and the eastern parts of Sumatra. In 1635 they occupied Formosa; in 1640 they took Malacca from the Portuguese; in 1647 they were trading at Sadras, on the east

coast of the Indian Peninsula; in 1651 they founded a colony at the Cape of Good Hope; in 1652 they built a factory at Palakollu, on the Madras coast; in 1658 they captured Jaffnapatam from the Portuguese in Ceylon; in 1664 they wrested from the Portuguese all their earlier settlements on the pepper-bearing coast of Malabar; and in 1669 they expelled the Portuguese from St. Thomé and Macassar. In 1749 the reigning prince abdicated in favour of the Dutch East Indian Company. Seven years prior to that event the sovereignty had been divided into a spiritual head, the Susunan or object of adoration, whose descendants now reside at Surakarta, near Solo, and a second prince who was styled Sultan, and whose descendants reside at Jokyokarta, all of them highly pensioned. Clive, in 1758, attacked the Dutch at Chinura both by land and water. In 1811, when France overran Holland, the flag of France was hoisted at Batavia, but in the same year the British captured it, only to restore it on the 19th August 1816, and exchanged Sumatra for Malacca in 1824. From this time the Dutch ceased to have territory on the continent of Asia, and have been extending their great island empire.—*Imp. Gaz.; Bikhmore*, pp. 22, 26. See Dutch; Holland.

NE'TSUKE. JAPAN. Curiosities, trinkets, charms, attached to the silken cord by which the Japanese fasten their tobacco pouch or tiny medicine-box to their girdles.—*Galatea*.

NETTAPUS COROMANDELIANUS. *Gmelin*. The white-bodied goose teal, or cotton teal, of British India, Ceylon, Burma, and Malaya. It is a pretty little goslet, it is unwary and familiar, frequents weedy and grassy tanks, flies with rapidity, and utters a cackling call. It breeds in holes of old trees, ruined houses, temples, chimneys, and lays eight or ten small white eggs. It is the Berniclea girra of Gray and Dendrocygnus affinis of Jerdon, and is 13 or 14 inches long. See Birds.

NETTLE is a name applied to plants which, when touched, impart a stinging sensation. They are classed by botanists under the natural order Urticaceæ of Endlicher. Of the species of the genus Urtica, of which there are known about 20, many sting, as also do those of Boehmeria. The Urticaceæ are widely diffused throughout both tropical and temperate climates. They grow to a gigantic size in the hot moist parts of Asia, and extend from its warm tropical islands all along the Malayan Peninsula to the foot of the Himalayas, along which, and in its valleys, they flourish even near to the banks of the Sutlej. Species are also found around the Neilgherries, and along the Malabar coast to the Konkan. Though the flowers of all are inconspicuous, some of the species (as *Urtica pulcherrima*) are remarkable for the beauty of their foliage. One of them (*U. tuberosa*) is distinguished by its tuberous root-stock, which is eaten by some of the natives of India, either in its raw or cooked state. The great characteristic, however, of the nettles is their sting. Some of the Indian species are remarkable, even among nettles, for this quality; as, for instance, *U. crenulata* and *U. heterophylla*. The latter is called the Neilgherry nettle; it is the most widely diffused of the large Indian nettles, being found in South Konkan, along the Malabar coast, Mysore, the Neilgherries, the valleys of the Himalaya, in

Assam, and Burma. It is an annual plant, the sting of it produces intense pain, the bark abounds in fine white glossy silk-like fibres; but these probably differ with the locality in which the plant is grown. Dr. Wight describes those of the Neilgherries as a fine soft flax-like fibre, and fitted to compete with flax in the manufacture of even very fine textile fabrics. The Toda extract it by boiling the plant, and use it as a material for making thread. Mr. Dickson passed it through his machine and liquid, which rendered it like a beautiful, soft, silky kind of flax. He calls it a wonderful fibre, of which the tow would be useful for mixing with wool, as has been done with China grass. It is very like fine wool, brings £45 to £50 a ton in the rough state, and prime warp £100 a ton. It grows wild all over the Neilgherry Hills. The fibre from the bark of old wood is steeped in cold water for about six days. For the bark of the young wood 24 hours suffice for the fibre to separate readily from the pulp. The fibre bleaches readily, is of great length and good quality and colour, the plant attaining a height of 8 to 12 feet; length of staple, however, is of very little consequence in jute, hemp, or flax plants, as one of the first parts of the process of applying them to manufacturing purposes is to cut them into lengths of 12 or 15 inches, to prevent them from getting entangled in the machinery. The Neilgherry nettle grows very abundant as a weed, yields a large percentage of fibre, and its cultivation could very easily be extended. By boiling for a short while, the stinging property of the nettle is destroyed.

The great shrubby nettle (*Urtica crenulata*) is common at Chakung in Sikkim. This plant, called Mealum-ma, attains 15 feet in height; it has broad glossy leaves, and, though apparently without stings, is held in so great dread, that Dr. Hooker had difficulty in getting help to cut it down. He gathered many specimens without allowing any part to touch his skin; still the scentless effluvia was so powerful, that mucous matter poured from his eyes and nose all the rest of the afternoon in such abundance, that he had to hold his head over a basin for an hour. The sting is very virulent, producing inflammation; and to punish a child with Mealum-ma is the severest Lepcha threat. Violent fevers and death have been said to ensue from its sting; but this he very much doubts. The stinging hairs are microscopic, and confined to the young shoots, leaf, and flower-stalks. Leichenault de la Tour describes being stung by this nettle, on three fingers of his hand only, at the Calcutta Botanical Gardens, and the subsequent sneezing and running at the nose, followed by tetanic symptoms and two days' suffering, nor did the effects disappear for nine days. It is, says Dr. Hooker, a remarkable fact that the plant stings violently only at this season. I frequently gathered it with impunity on subsequent occasions, and suspected some inaccuracy in my observations; but in Sylhet both Dr. Thomson and I experienced the same effects in autumn. Endlicher (*Lindley's Vegetable Kingdom*) attributes the causticity of nettle-juice to bicarbonates of ammonia, which Dr. Thomson and I ascertained was certainly not present in this species.—*Royle; Hooker, Him. Jour.* ii. p. 188.

NEUERA ELIA, a mountain summit in Ceylon, taking its name from Nuwara, SINGH, an imperial

residence, and Elia, light. It was first visited by British officers in 1826, and in 1829 Sir Edward Barnes opened it as a sanatorium. It is 6222 feet about the sea, and, on its north, mountains rise 2000 feet higher still. Its temperature ranges from 36° to 81°, with a mean daily variance of 11°, the average at noon being 62°, and the highest observation of the unexposed thermometer 70°. The quantity of rain falling has perceptibly decreased of late years, probably owing to the extensive clearing of the surrounding forests to prepare them for coffee-planting. Its highest peak is Peduru-talla-galla, 8280 feet in elevation, which derives its name from the plants which grow there amongst the rocks (galla), and are substituted for the (talla) leaves in making mats (pedurn). It is a favourite place of resort from the commencement of January to the middle of May. At that time the rainy season commences, and visitors rapidly disappear.—*Baker's Rifle*, p. 32; *Trennent's Ceylon*.

NEUROPTERA (from *νῦρον*, a nerve, and *πτερόν*, a wing), one of the orders into which the insect class is divided. It may be illustrated by the Libellula or dragon-fly, Ephemera or May-fly, and Phryganea or alder-fly.

NEWBOLD, CAPTAIN T. J., an infantry officer of the 12th Regiment of the Madras Presidency, a voluminous and accurate writer on varied branches of science. Ob. 1850. He wrote on the Beryl Mine in Coimbatore, in *Edin. New Phil. Jl.* xx. 241; Valley of Sondoor, *Mad. Lit. Trans.*, 1838; Temperature of the Springs, Wells, and Rivers in India and Egypt, *Phil. Trans.*, and republished *Edin. New Phil. Jl.*, 1845-46; Geological Notes on the Southern Mahratta Country, in *Bl. As. Trans.*, 1845; Oseous Breccia and Deposits in the Caves of Billa Soorgum, Southern India, *ibid.*, 1844; Visit to the Bitter Lakes, Isthmus of Suez, in *Lond. As. Trans.*, 1845; Geological Notes from Masulipatam to Goa; on the Alpine Glacier, Iceberg, Diluvial, and Wave Translation Theories, with reference to the Deposits of Southern India, in *Bl. As. Trans.*, *ibid.* v., xiv. part 1, 217; Geological Notes across the Peninsula of Southern India, from Kistapatam, *ibid.*, 398; History of the Persian Poets, in *Mad. Lit. Trans.* ii. 245; Summary of the Geology of Southern India, in *Lond. As. Trans.*, 1845; Essays on the Metrical Compositions of the Persian Poets, with a Notice of their Poetry, *Mad. Lit. Trans.* iii. 113, 232; on the Code and Historical MSS. of the Siamese; on the Progress of Buddhism to the Eastward, *ibid.* vi. 117; Recent Fresh-water Deposits near Kurnool, in *Bl. As. Trans.*, 1844, xiii. 213; Account of the Muhammadan Kings of Acheen, *ibid.* iv. 117; Notice of Malayan Code, *ibid.* 390; Political and Statistical Account of the British Settlements in the Straits of Malacca, 2 vols. 8vo; Site of Hai or Ai, Royal City of the Canaanites, in *Bom. Geo. Trans.* viii. 335.—*Bombay Times*, May 1850; *Dr. Buist's Catalogue*.

NEW BRITAIN, a chain of large islands which stretch between the parallels of 4° and 6½° S. from near the N.E. part of New Guinea and the S.W. part of New Ireland, and having Dampin Channel to their westward, and St. George's Channel to the eastward of them. In the New Britain group the Papuan girls of six or eight years old are shut up for some five years in cages made of palm-leaves, out of which they are never allowed to

come till they are to be married. The cages are placed inside large houses, with old women to watch them. The girls are taken out once a day to wash, but they never leave the house. Mr. Wallace says that they do not seem to suffer in health.

NEW CALEDONIA is surrounded by a great reef. It was colonized by the French in 1855. Its southern extremity is in lat. $22^{\circ} 24'$ S., and long. $166^{\circ} 55'$ E. The Isle of Pines lies to the east, in lat. $22^{\circ} 42'$ S., and long. $167^{\circ} 31\frac{1}{2}'$ E. Port St. Vincent, a beautiful and extensive harbour, is formed by islands, three miles within the coral reef that extends, with a few breaks, along the whole S.W. coast of New Caledonia. It fronts the shore at the distance of four to eight miles. It is steep to seaward, level with the water's edge. Loyalty Islands form a large range to the eastward of New Caledonia. Its soil is of volcanic origin, and its flora almost exclusively arborescent, Proteaceæ, gigantic ferns, and casuarinæ.

NEW GUINEA, or Tana Papua, is an island on the eastern border of the Eastern Archipelago. Its north coast is generally high; towards the sea there is low land, but a little way inland a chain of mountains extends parallel to the coast, and elevated in some places 4000 or 5000 feet above the sea, and there are said to be mountains 17,000 feet high, covered with snow; Mount Owen Stanley being 13,000 feet. Near Dori the loftier mountains retire a little backward, and seem to reach their greatest altitude in the Arfak range, which the officers of the Coquille ascertained to have an elevation of 9500 feet. It is 1500 miles long, and 410 in breadth, with an area of 224,000 square miles. It may be said to consist of a great central mass about the size of the Austrian empire, and two tapering peninsulas,—one at the north-west, or Dutch, the other at the south-east, or British end. Mountain ranges exist in these peninsulas, but little is known of the country inland. Signor D'Albertis, who ascended the Fly river for about 500 miles into the interior, alone has seen anything of it.

The Portuguese (Jorge de Meneses) stumbled on it in 1526, and the Spaniard (Luiz Vaez de Torres), in 1606, formally took possession of it in the name of the king of Spain, and with it 20 natives, so that, to use his own words, 'with them we might be able to give a better account to your Majesty.' The Dutch Commissioner Van Delden, in a proclamation dated August 24, 1828, annexed to the crown of Holland that portion of New Guinea and the lands lying therein, beginning with the 141st degree of longitude east of Greenwich on the S. coast, and from thence W.N.W. and N. as far as the Cape of Good Hope, situated on the north coast. The climate was found to be too unhealthy, and in 1835 the settlement was abandoned. But in 1848, by resolution of the Governor-General (dated the 30th July), the Netherlands territory was determined to extend from the Cape Bonpland in $140^{\circ} 17'$ E. on the N. coast, along the shores of Geelvink Bay to the Cape of Good Hope, and, further, towards the W., S., and S.E. as far as 140° E. on the S. coast. On this portion, posts, provided with the Netherlands arms, and with the inscription New Guinea, were set up in 1850. The surface thus under Netherlands rule, together with that of the island included, amounts to 3210 square geographical

miles (Dutch), with a population estimated at about 200,000 souls.

The British connection with it began with Captain Bligh, of Bounty fame, who sighted New Guinea in 1792, and he took possession in the King's name of 'everything he saw' on his voyage through Torres Straits. According to a despatch from the Admiralty to the Colonial Office, dated 14th October 1873, New Guinea was formally taken possession of by Lieutenant Yule, of Her Majesty's ship *Bramble*, in 1846, at a point named by him Cape Possession, about 300 miles westward of Captain Moresby's subsequent discoveries. Captain Moresby, in the *Basilisk*, in 1874 circumnavigated the island, and found an archipelago of about 60 islands, with many fine harbours. On the 24th April 1874, he landed his ship's company on Hayter Island, and, in the Queen's name, took possession of it, as well as of Moresby and Basilisk Islands, together with various groups of detached islets. On the 6th November 1884, Great Britain proclaimed the British Protectorate over all the southern coasts to the eastward of the 141st meridian of east longitude. The area of annexed territory is about 175,000 square miles. The races are untouched by civilisation, and for the most part are perfect strangers to the white man.

The villages are small and scattered, but all are independent, and recognise no central authority. A large and powerful village is feared by the smaller ones, and will plunder and oppress them, but there is no chieftainship over an entire district. The promulgation of laws and the exercise of justice are alike unknown. They are all predatory, and given to thieving. The men, when they have killed an enemy, are tattooed. The women wear a kilt, and are all tattooed.

The London Missionary Society have established a mission at Port Moresby, Boera, Samoa, and other places; but the climate of New Guinea is such as to render European colonization hazardous. Experience scarcely warrants the hope that healthy districts will be found.

The rainfall in the wet season averages 34 inches, whilst the heat at Port Moresby ranges from 73.5° , the average minimum night temperature, to 90.43° in the shade during February, which is the hottest month.

New Guinea has several varieties of the Negro race, the tall Papuan, the small Negrito, and the Maori form, and the people on the coast are in some places mixed with the browner races of the Moluccas. The darker type of Papuans struck D'Albertis as identical with the true Negro of Africa, inasmuch that on his return home he felt sure that were some of the Somali men, among whom he was shipwrecked in the Red Sea, transported to New Guinea, they might be mistaken for natives of that island, having the same receding forehead, aquiline nose, and moderately thick lips, with curly but not woolly hair. This is what he called the Arab type when speaking of Moatta and Tawan, distinct in many respects from the Negroes of Central and Southern Africa. The skulls collected by him exhibit specimens both of the extreme prognathous type, and of the round or brachycephalic, generally identified with the Polynesian race. The skin is black in the natives of the west, while from Redscar Bay eastward it is light brown.

NEW GUINEA.

In the interior, again, the people in the mountains are intermediate in colour, and are quite distinct in habits.

It is the great seat of the Papuan race. The names by which the island is known to Europeans and Asiatics, New Guinea and Tanna Papua, both distinctly refer to the leading peculiarity of the race by which the coasts are inhabited.

This island, and also the Ki and Aru Islands, with Mysol, Salwatty, and Waigiou, are occupied almost exclusively by varieties of the Papuan, and a Negro variety extends over the islands east of New Guinea as far as the Fiji group, though they differ greatly in physical appearance in New Ireland, Malicollo, one of the great Cyclades, Tanna and New Caledonia in the New Hebrides.

The Papuan variety about the Fly river in New Guinea has an intensely dark brown skin, but not nearly black, are taller and more warlike, Captain Moresby says, than those of the E. Peninsula, also less intelligent, but better wood-carvers. They are said to be cannibals. On the 7th of March 1879, the missionaries were attacked by the natives at Kato, in the district of Port Moresby, Hulu, and four of them, with two of their wives, four children, and two servants, were killed.

The tribes on its E. Peninsula vary in colour from light yellowish-brown to rich coffee-brown. They have many tribes, and seem to be of Papua-Malay descent.

The Rev. W. G. Lawes described the villages round Hood Bay as inhabited by a fine industrious race, but they have martial proclivities, and carry on hostilities against each other. Their women seem to be better treated than with most savages. They are excellent sailors, make capital pottery, are bold hunters, and skilful fishermen. The Koitapu and Koiari aborigines of the part of New Guinea about Port Moresby (lat. $9^{\circ} 30' S.$, long. $147^{\circ} 10' E.$) differ in physique, language, ornaments, modes of cooking, weapons, and manufactures from the coast tribes or Motu. They have frizzy, not woolly hair, and are rather small in stature. The number of separate tribes and races on the S.E. coast of New Guinea is very great, 25 different dialects and languages having come under notice in 300 miles of coast. Its S.W. part is known to native traders as Papua-kowiyee and Papua-Onen; it is inhabited by the most treacherous and bloodthirsty tribes, and up to the present time traders continue to be murdered there. The Papuans of Mysol, Salwatty, Waigiou, and some parts of the adjacent coast, have become peaceable. On the S.W. coast of New Guinea, however, and in the large island of Jobi, the Papuan race are in a very barbarous condition, and take every opportunity to rob and murder. The tribe in the interior of Dori are called Arfak. They are savages. Not a single Malay, or Bugis, or Ceramese settlement exists on New Guinea, though several are scattered over the outlying islands, the principal being at Salwatty, a large island forming the apparent N.W. extremity of New Guinea, from which it is separated by a very narrow strait.

The flora and fauna are to a great extent Australian. Some districts are hungry and barren, while in others food is plentiful. Areca palm, bread-fruit, wild mango, and chestnut, pandanus, crotons of variegated leaf, crimson dracense, orchids,

NEW HEBRIDES.

creepers, and ferns flourish near watercourses and rivers, or in gorges and ravines of the hills. Bananas are plentiful, and a few yams are grown. Taro is abundant in some places; and sugar-cane, pumpkins, melons, wild mango, and cucumber are found to flourish in others. A great deal of sago, too, is made from the sago-palm, and the native dietary is eked out not only by cocoanuts, but by shell-fish, lizards, beetles, and, writes Mr. Wallace, almost every kind of large insect, eaten either raw or cooked, so that the people are never half-starved like the Australians. The coasts are rich in mother-of-pearl shell, tortoise-shell, pearl oysters, trepang, and fish.

The flora is rich in Filices, Scitamineæ, Aroidæ with edible roots, Convolvulaceæ and Solanaceæ. The Gramineæ furnish saccharum, milium, oryza, zea, the beautiful Phalaris arundinacea. Amongst the fruit trees are seen the Carica papaya, Musa paradisiaca, Bromelia ananas, Citrus aurantium in great quantity, Canarium commune, Terminalia catappa and Myristica moschata. Along the shore there are Rhizophora, Myrobalanus, Mangium, Avicennia, Barringtonia, Elaeocarpus, Xanthoxylum, Celastrineæ, Ficus, Ricinus, Artocarpus, Calamus, Flagellaria, Bambusa, Acacia, and Casuarina. More than 150 kinds of insects, Scarabei, Buprestides, Curculionides, and also beautiful Lepidopteres and Hemipteres. This country is also rich in beautiful coloured Arachnides. Amongst the birds there are found Psittacus galericus, Phlyctolaphus sulphureus, Psittacus aterrimus, and species of Buceros. Of the birds of paradise are the brown-feathered with beautiful white and orange-coloured feathers on the sides; the wholly black with long tail and large bent beak; a small yellow kind with orange-coloured breast; another kind, red with two pens projecting from the tail, with a small green-coloured curled bunch of feathers at the ends. Epimachus magnus, a bird of the coasts of New Guinea, is the Upupa magna, Gm., and U. superba, Lath. Its tail is three feet long, and its head-feathers are lustrous steel-blue. The mammiferous animals are few in number. Some wild hogs, and a species of marsupial, Perameles doryanous, about the size of a rat, with scanty reddish hair like bristles, an extended pointed snout, short tail, and a pocket on the belly in which it carries its young ones; the cuscus, flying phalanger, and the echidna or prickly ant-eater. There is no elephant, leopard, or tiger.—*Saturday Review*; *Moresby in J. R. Geog. Soc.*; *D'Alberty's New Guinea*; *Voyage of the Triton*, 1828; *Bikmore*, p. 204; *A. R. Wallace*; *Mr. W. G. Lawes*.

NEW HEBRIDES, islands in the Pacific Ocean, lying between lat. $14^{\circ} 29'$ and $20^{\circ} 4' S.$, and long. $166^{\circ} 41'$ and $170^{\circ} 21' E.$ In Tana, the colour of the native skins is a shiny black, and their bodies covered thinly with hair, or a kind of down. Some have black or brown crisp hair; and that of the greater number is twisted and tied up into an immense number of thin cords, the ends being frizzled out about two inches from the extremity, where the colour is a sandy red. The nose is generally rather flat, and the eyes of a chocolate colour; the ears of almost all being pierced, and flat rings of tortoise-shell and other trinkets hanging from them. The men wear the wrapper, the end of it being, in many cases, tied up by a narrow band of some kind of plait, passing round

the hips, and producing a much stronger effect of indecency, according to European notions, than the total absence of clothing would do, the more so that this scant garment serves as a pocket wherein to deposit a pipe, piece of tobacco, or any such article that they may obtain by traffic. Women dress in a petticoat reaching to the knees. Some skulls exhibited in 1876 at the Anthropological Society from Malicollo had their forehead artificially depressed. The *Conus textilis*, Linn., found at Aneityum, bites and injects a poisonous acrid fluid into the wound, occasioning the part to swell, and often endangering life.—*Captain Elphinstone Erskine; Western Pacific.*

NEW IRELAND is a narrow island upwards of 200 miles long. Its southern part and the east end of New Britain form the east side of St. George's Channel. Its Cape St. George is in lat. $4^{\circ} 51'$ S., and long. $152^{\circ} 48'$ E. Captain Keppel mentions that the water where he anchored was so beautifully clear that in forty fathoms deep the coral shells and seaweed growing at the bottom could be distinctly seen, and gave it all the appearance of a beautiful submarine garden.—*Keppel's Ind. Arch.* ii. p. 208.

NEWSPAPER. The oldest newspaper in the world is the King-Pau, or Capital-Sheet, published in Peking, and, since the 4th of June, issued in a new form prescribed by special edict of the reigning emperor Quang-soo. It first appeared A.D. 911, but came out only at irregular intervals; since the year 1351, however, it has been published weekly, and of uniform size. Until its reorganization by Imperial decree, it contained nothing but Orders in Council and Court news, was published about midday, and cost two cash, or something less than a halfpenny. Now, however, it appears in three editions daily. The first, issued early in the morning, and printed on yellow paper, is called Hsing-Pau (Business-Sheet), and contains trade prices, exchange quotations, and all manner of commercial intelligence. Its circulation is a little over 8000. The second edition, which comes out during the forenoon, also printed upon yellow paper, is devoted to official announcements, fashionable intelligence, and general news. Besides its ancient title of King-Pau it owns another designation, that of Shuen-Pau, or Official-Sheet. The third edition appears late in the afternoon, is printed on red paper, and bears the name of Tilani-Pau (Country-Sheet). It consists of extracts from the earlier editions, and is largely subscribed for in the provinces. All three issues of the King-Pau are edited by six members of the Han-Lin Academy of Sciences, appointed and salaried by the Chinese State. The total number of copies printed daily varies between 13,000 and 14,000. About the year 1880, the Chinese at Shanghai had three daily papers, and the Shuen-Pau circulation was 16,000 daily. Japan has several newspapers.

The Hindu and Muhammadan courts of India, from the most ancient times, kept news-writers at towns of importance, but in British India the first vernacular newspaper of the kind familiar to Europeans was the *Sumachar Durpun*, issued by Mr. Marshman, who was also for many years the editor of *The Friend of India*. The next newspaper was the *Cowmoody*, of which Raja Ram Mohun Roy was one of the editors.

The first newspaper of British India in the Eng-

lish language appeared in Bengal on the 29th January 1780. It assumed a great latitude of expression, and the Government of India established a censorship, supported by penalties, which was continued for nearly 30 years, and at times great restrictions were put upon it. Comments were forbidden on the acts of the higher authorities, and the press for a long time was a mere receptacle for advertisements. About the year 1820, however, Mr. James Silk Buckingham commenced to write freely, and as the Marquis of Hastings, then Governor-General, avowed that good government had nothing to fear from the light, Mr. Buckingham commented freely on the acts of the Government; but succeeding Governor-Generals stringently applied the existing penal rules, and deported Mr. Buckingham. Subsequently Lord Amherst and Lord William Bentinck again permitted freedom of discussion; and during Sir Charles Metcalfe's administration, supported by Mr. Thomas Babington Macaulay, the press was declared free, and it continued so until the beginning of 1878, when a censorship of the native press was re-established.

The Vernacular Press Act (Act 9 of 1878) empowered the provincial Governments to take repressive measures against such vernacular journals as might transgress certain very wide canons of loyal conduct and of political criticism; but the orders of the Supreme Government of India, approved by the Secretary of State, further required that no repressive measures should be instituted under the Act without the previous sanction of the Supreme Government in each case. In 1872 there were in India about 300 newspapers published in the various vernacular languages,—chiefly in Bengali, Urdu, Mahrati, Gujerati, Tamil, and Telugu; in English 142, vernacular 223, in English and vernacular 66; total, 431. There are also nearly 20 journals published in English, of which the chief are those of Calcutta, Bombay, Madras, Allahabad, and Lahore.

NEW TESTAMENT, a sacred book of the Christians, called *Anjil* by Muhammadans.

NEW YEAR of the Chinese falls on the first day of the new moon after the sun enters Aquarius. The Muhammadans of India have a year of lunar months, and their New Year's day is the first of the month of Maharram. See *Nao-roz*.

NEW ZEALAND, in the South Pacific Ocean, between Australia and North America, consists of two large and several small islands, lying between lat. $34\frac{1}{2}^{\circ}$ and $47\frac{1}{2}^{\circ}$ S., and long. $166\frac{1}{2}^{\circ}$ and $178\frac{1}{2}^{\circ}$ E., 800 miles long from north to south, and 120 miles broad, with an area of 99,969 English square miles. It was discovered in 1642 by the Dutch seaman Abel Tasman, four of whose crew were killed and eaten, and on the 6th October 1769 by Captain Cook, a British navigator, who had with him Solander and Joseph Banks as naturalists, and in his second voyage the Forsters.

The Middle island is the largest, and has fewer tribes of aborigines than the north. The South island is very small, and not fit for agriculture or grazing, owing to the severe cold and thick bush. It is but thinly populated, and the chief occupation of its inhabitants is turning to account the whales and seals which abound on its coast. Down the middle of the North island runs a high range of mountains, of which Ruapahu, 9000 feet above the sea, is the highest. From the main range

some high spurs run down to the sea, but most of the range finishes off in low hills, valleys, and plains, highly in request for agricultural and grazing purposes.

Amongst these hills are several active volcanoes, with many that have become extinct. In the higher ranges are many fresh-water lakes. The hot springs on Lake Taupo are one of the great sights of this colony. From these lakes and this mountain tract spring many streams and rivers, some of which are navigable for some distance inland. The rivers of New Zealand are all subject to sudden rises, from the melting of the snow, or from heavy falls of rain; the mountains from their abrupt formation rapidly throwing off the surplus waters. In the Middle island the main range of mountains runs chiefly down the west coast, and on that side there is little land suitable for agricultural or grazing purposes; but on the eastern coast this formation gives room for large plains and fertile valleys. Of this range, called the Southern Alps, Mount Cook attains an elevation of 13,000 feet, and from it to the sea runs the largest glacier in New Zealand. There are many other glaciers in the region of perpetual snow, but this one is of great extent.

On the east coast of both islands there are some splendid harbours, especially the Bay of Islands, Auckland, and Akarua. The principal towns, Wellington, Christ Church, Dunedin, and the Bluff, have harbours. Some other towns on both coasts have open roadsteads safe only with off-shore winds.

Wellington is now the capital of New Zealand. The great gold-digging towns Auckland and Dunedin have the largest population.

The aborigines are the Maori. In stature they are almost equal to Englishmen, the average height of the men being 5 feet 6½ inches. The females are less handsome than the men, although the young are invariably pleasing. 87 per cent. have brown skins, with black, straight, and waving hair; 10 per cent. have reddish-brown skins, with short frizzly or long straight hair, having a rusty-red tinge in it; and 3 per cent. have black skins, with dark frizzly hair, which does not, however, spread over the head as in Negroes, but grows in tufts which, if allowed to join, twist round each other and form spiral ringlets. Among some tribes the black and reddish men are more numerous than among others. Chiefs are generally brown-coloured, occasionally reddish, rarely black. Every tribe, however, comprises the three varieties; all speak the same language.

Tattooing is a Polynesian word signifying a repetition of taps. In the language of the New Zealanders, *moko* is the general term for the tattooing on the face, and *whakairo* for that on the body. Dampier in 1691 brought to England the first tattooed South Sea islander, a man who was well known in London as the painted prince, at which place he died of small-pox. New Zealand men tattoo their faces, hips, and thighs; and the women their lips, chins, eyelids; and occasionally straight lines, the offspring of each woman's fancy, are drawn on their bodies. Every line has a name, and among distant tribes the tattoo marks are alike, although the figures tattooed are not made up of the same number of lines. And among the New Zealanders it is a

mark of rank to have the streaks of a fish carefully cut on their bodies.

When first discovered, New Zealand possessed, of mammalia, only dogs and rats. The islands had 15 species of the wingless apteryx birds; the *Dinornis giganteus*, now extinct, was about 9½ feet high, and the *D. elephantopus*; the *Palapteryx ingens*, 6½ feet high. While left to themselves, the Maori became skilful hunters and fishermen, and good agriculturists. They learned to carve, to weave, and to tan. They built up an elaborate mythology. Their cannibalism was associated with a belief that the better qualities of the victim were transferred to his devourer. Captain Elphinstone Erskine heard it asserted that there did not exist in 1845 many New Zealand males of twenty years of age who had not, in their childhood, tasted of human flesh. The race is fast disappearing. In 1840 their number was 100,000; in 1856, 65,000; in 1874, 45,000; and in 1882, only 40,000 in North Island, and 200 in South Island. The Maoris themselves scent their approaching fate: 'As the white man's rat has extirpated our rat, as the European fly is driving out our fly, as the foreign clover is killing our ferns, so the Maori himself will disappear before the white man.' Everywhere, from the Australian aborigines to the New Zealand Maori, the native races are depicted as fading away before the white man, like the native rat and even the native grasses. Its principal timber trees are species of *dacrydium*, *metrosideros*, and *podocarpus*.

NGARI or GNARI, a territory which embraces the whole of the upper valley of the Sutlej, from the Manasarowara lake to the crest of the Porgyal mountain.

NG TSOCK, in China, undress and wash and re-clothe the dead. They are deemed unclean, are not permitted to worship in the temples, their sons are not allowed to become candidates for literary degrees; they resemble the pollinctores of the ancient Romans.—*Gray*, p. 280.

NHARUI. The races occupying Baluchistan are divided into two great classes, severally known by the appellation of Baluch and Brahui, and these again are subdivided into a number of tribes, who take their names from the chief under whom they serve, the district or country to which they belong, or the traditions whence they derive their descent. The contour of the people of the two classes is as unlike, in most instances, as their languages, provided they be descendants of a regular succession of ancestors of either; but the frequent intermarriages which take place amongst them have tended in some degree so to blend together the peculiar characteristics of both, that in many families, and even whole tribes, they have ceased to exist. The Baluch branch, in the first instance, form the original class of that name, subdivided into three principal tribes, called Nharui, Rindi, and Mughsai. The Nharui principally inhabit that portion of Baluchistan which lies to the W. of the desert, and there are likewise khels of them at Noosky and in Seistan. The Baluchi partakes considerably of the idiom of the Persian, and at least one-half of its words are borrowed from that language, but greatly disguised under a corrupt and unaccountable pronunciation. The Brahnikai is dissimilar in sound and formation, not in any way approaching to the idiom of the

Persian. It contains a portion of ancient Hindu words.

NIAMAT-ULLA—author of the *Makhzan-i-Afghani* and of the *Tarikh-i-Khan-Jahan Lodi*, essentially the same books. He was the *Wakia navis* or news-writer at the court of the emperor Jahangir.—*Elliot*.

NIAN. BHOT. *Ovis ammon*, the wild sheep of Ladakh. It is fleet and agile and graceful.

NIARIYA, a Hindu caste about Benares who purchase and sift the sweepings of goldsmiths' shops.

NIAZI, a tribe of Afghans, British subjects, who are settled in the Bannu district. They are descended from Niaz Khan, second son of Lodi, king of Ghor, by his second wife Takia. Lodi was the Lohani chief who in A.H. 955 invaded Hindustan, and, conquering the Daman, apportioned the lands amongst his sons. The fertile districts of Isa Khel fell to the lot of Niaz Khan, whose descendants are settled there to this day. Their four agricultural sections are about 16,000 souls, the great majority being settled in the Bannu and in the Trans-Indus districts. The Povindah subdivision trade only between Khorasan and the Dehrajat, encamping in the cold weather on the west of the Indus, and, when in Khorasan, wander in the Pana district. They have five clans, with about 1000 fighting men. The route they follow is the Ghwalarai, though they sometimes go to Kabul by Dawar and Khoet, but this route is seldom followed on account of the difficulties of transit through the Turni country.

NIBONG. MALAY. A palm of the Malacca districts, said to be the *Oncosperma filamentum*? Its stem is split into lathes, and used for flooring and other house-building purposes.

NIBUTTI of the Buddhists is identical with the *nivetti* or *moksham* of the Brahmans, and possibly analogous to the *apolutrosis* and *exanastasis* of St. Paul. Nibutti or nirvana means the release from re-appearance in a material body.—*Taylor*.

NICANDRA INDICA. *Kakna*, HIND. Winter cherry. Said to be diuretic and purgative, useful in ulcerations of the bladder.—*Powell*, i. p. 364.

NICANDRA PHYSALODES. *Gartn*. *Atropa physalodes*, *Linu*. It is said to be diuretic.—*O'Sh*. p. 460.

NICANOR, a lieutenant of Antigonus (B.C. 305), who seized the whole of Media, Parthia, Asia, and all the countries as far as the Indus.

NICARAGUA WOOD, or Peach wood.;

Blood-haut, . . .	DUT.	Blutholtz, . . .	GER.
Bois de sang, . . .	FR.	Legno sanguigno, . . .	IT.
Bois de Nicaragua, . . .	„	Palo de sangre, . . .	SP.
Nicaragaholz, . . .	GER.	Pao sanguinho, . . .	PORT.

—*M'C. Com. Dict.* p. 851.

NICHOLSON. A medical officer of the Bombay service, who wrote an *Account of the Koorree*, or eastern branch of the Indus, showing the probable changes of its course, and the manner in which the old channels have been blocked up, in *Bom. Geo. Trans.* vi. p. 111; *Account of the Island of Perim*, in *Bom. As. Trans.* i. p. 10; of the Submerged City of Balabhipura, in *Lond. As. Trans.*, 1852.

NICHOLSON, JOHN, a Bengal military officer who rose to the rank of lieutenant-colonel. He was a Deputy-Commissioner in the Panjab Civil Commission. He had more influence with his

subordinates than perhaps any native of Great Britain in the east has ever had. One class of natives actually termed themselves 'The Nicholsoni or Nikar Singhi Fakirs.' A native speaking of him said, 'The sounds of his horse's hoofs were heard from Attock to the Khaibar.' In an official report of the Panjab Government, this sentence occurs, 'Nature makes but few such men, and the Panjab is happy to have had one.' He was employed in the Afghan war of 1838 to 1842, and fell at the re-taking of Dehli.—*Tr. of Hind.* ii. 368.

NICKEL, a brilliant white metal resembling silver; ductile and malleable, and capable of receiving a high polish. It is usually procured from speise, a compound of the metal with arsenic, found associated with cobalt in Germany. Alloyed with copper, it forms argentan or German silver, and is besides used in making mariners' compasses, and for other purposes. Nickel and cobalt occur near Saffragam, in Ceylon.—*Waterstone; Fuulkner*.

NICOBAR, Sambalang, or Nine Islands, in the Bay of Bengal, between lat. 6° 40' and 9° 20' N., have an area of 735 square miles. The Danes formed a settlement on this group in 1756, but abandoned it twelve years after. In 1864, Captain Steem Bille, the commander of a Danish corvette, reported to his Government their unhealthy character, and that Government finally abandoned them. The Indian Government, on the 15th July 1872, annexed the Andamans, the Great and Little Cocos, and the Nicobar Islands, the islands of Car Nicobar and Great Nicobar, with those lying between them, including Tillanchong. The Nicobars are not more than 120 miles distant from the west end of Sumatra. The population is about 6000. Those of Malay origin are of a sallow copper colour, with small oblique eyes, the whites of which have a yellowish tinge; their noses are flat, their mouths large, their lips thick; their persons are well proportioned but short, their hair coarse and black, and little or no beard. The back of their heads is extremely flat, it being made so by compression in infancy. They are lazy, cowardly, drunken, indolent, and apathetic; in a rude state of society, and unacquainted with any of the ordinary arts. Agriculture is unknown, their industry being confined to fishing, raising a few roots, fruits, and palms, and rearing the hog, dog, and common fowl. The people are supposed to have cut off many sailing ships. There are many wild cattle from a breed introduced by the Danes. The many dialects of the Nicobars have been supposed to be allied to those of the brown-complexioned people of the Archipelago. They suppose that the soul of the dead stays for a time in the neighbourhood in which it lived. Burials are conducted with great solemnity, and over each body a post is erected, on which are placed the utensils daily used by the deceased. *Calceas Nicobaricus*, the Nicobar pigeon, is of great size and splendour; its appearance and habits exhibit a near approach to the gallinaceous birds. It lives chiefly on the ground, runs with great swiftness, and flies up into a tree when disturbed. Its nest is of the rude platform construction usual among the pigeon family; one of them found was built in a tree about ten feet from the ground, and contained a single white egg.—*Crawford; As. Res.; J. Ind. Arch.; Rec. Govt. Ind.; MacGillivray; Horsburgh*.

NICOLO-DI-CONTI, or in Latin De Comitibus, a Venetian of noble family, who resided as a merchant in the city of Damascus about A.D. 1419. He passed through Persia, sailed along the coast of Malabar, visited Bengal, Cambay, Vizianagar, Palconda, St. Thomé, Ceylon, Sumatra, Tenasserim, Ava, Java, thence returned to Quilon, Cochin, Calicut, Socotra, and homeward. On his return passed along the coasts of Ethiopia, sailed up the Red Sea, crossed the desert, and reached Cairo, where he lost his wife and two children, and returned to Venice in 1444, after twenty-five years' absence. As a penance for having apostatized to the Muhammadan religion, the Pope Eugene IV. required him to relate his adventures to Poggio Bracciolini, the Pope's secretary, and the original Latin appeared in the fourth book of Poggio's treatise, *de Varietate Fortunæ*, libri quatuor, Paris 1723. He speaks highly of what he saw about Gujerat. He found the banks of the Ganges (or perhaps the Megna) covered with towns amidst beautiful gardens and orchards, and he passed four cities before he reached Maarazia, which he described as a powerful city filled with gold, silver, and precious stones.—*Ind. in 15th Century; Ramusio*, i. p. 359; *Elph.* p. 427.

NICOTIANA, the tobacco genus of plants, belonging to the order Solanaceæ, mostly herbs. The following are the better known species:—

- Nicotiana angustifolia*, Ruiz and Pav., Chili.
N. Donariensis, Lehm., Buenos Ayres.
N. fruticosa, L., the *N. frutescens*, Cav., India.
N. glutinosa, L., of Peru. It is the *N. glauca*, L.: *Tabacum viridis*, Monch; *Sauranthus glutinosus*, G. Don.
N. latissima, Miller (*N. macrophylla*, Lehm.), yielding largely the Chinese, Orinoco, and Maryland tobacco.
N. multivalvis, Lindley, Columbia river.
N. nana. —? Rocky Mountains.
N. paniculata, Lam., *N. viridiflora*, Cav., Peru.
N. Persica, Lind., Persia, Shiraz tobacco.
N. plumbaginifolia, Viv., the *N. cerinthoides*, Vitm., Rio Grande.
N. quadrivalvis, Pursh., N. America, Missouri.
N. repanda, Willd., Cuba, Havannah tobacco.
N. rotundifolia, Lindley, Swan river.
N. rustica, Linn., Europe, Asia, Africa, America, English tobacco, Godavery tobacco, Syrian tobacco.
N. tabacum, Linn., the *N. Havanensis*, Lag., America.

Most of these yield tobacco leaves for smoking, and many of them are cultivated in the gardens of Europe. The name *Nicotiana* was given to these plants after Jean Nicot of Nîmes, in Languedoc, who was an agent of the king of France at Portugal, and in 1560 procured the seeds of the tobacco from a Dutchman who had obtained them in Florida. Tobacco was the name used by the Caribbees for the pipe in which it was smoked, and this word was transferred by the Spaniards to the herb itself. Tobacco leaves when properly dried have a greenish-yellow colour, a strong, pleasant smell, and acrid taste; taken into the stomach by persons not habituated to its effects, violent vomiting, diarrhoea, and collapse are occasioned. *N. quadrivalvis* has capsules with four valves; it grows near the Missouri river, and is there smoked by the natives. *N. multivalvis* has capsules with many valves; it is cultivated by the Indians on the Columbia river for smoking. It is a fetid plant, and the calyx, the most fetid part, is selected by the Indians for smoking. *N. nana*, a small species, a native among the Rocky Mountains of North America, is

smoked by the Indians. *N. repanda*, a native of Cuba, is said to furnish the tobacco for making the small cigars known as Queen's. The *Macuba* tobacco, which grows in Martinique, is deemed the finest, and next to it in esteem is the Cuba tobacco. *N. macrophylla*, or Orinoco tobacco, is a herbaceous plant with ovate-acute leaves clasping the stem; throat of corolla inflated, segments short-pointed; the stem rising from 5 to 7 feet high. It is a native of America, and is frequently used for smoking; the milder Havannah cigars are said to be made from it. The Havannah, Persian, Manila, and Maryland tobaccos have been extensively introduced into the Peninsula of India. The British smoke more of the strongest tobacco than any nation in the world.

Nicotiana Persica, Shiraz tobacco, is a herbaceous plant, clothed with clammy down, with the leaves of the root oblong, those of the stem acuminate and sessile; corolla salver-shaped, with a long tube, and rather unequal segments. This tobacco is milder than that produced by the *N. tabacum*.

Nicotiana rustica, Linn.

Kakkar-tamaku, CHENAB.	Bauern-tabak, . . . GER.
Tseang, CHIN.	Tabac-comaroso, . . . SP.
Tabac-pausse, FK.	

This plant is grown in Europe, Asia, Africa, and America, and in India is highly valued. It is the English, Syrian, Salonica, Godavery, Turkish, Latakia, Tamaku, Kandahari tamaku, Kulkatti tamaku. It has a herbaceous square stem, with petiolate-ovate quite entire leaves; tube of corolla cylindrical, longer than the calyx; segments of the limbs roundish, obtuse. It was the first species that was introduced into Britain for growth from America. It grows very well in that climate, and in some places is almost naturalized. From the extensive range of climate and difference of situation which this plant occupies, its characters suffer considerable change; hence a number of varieties have been described. The yellow Chinese Tseang tobacco is cultivated in East Tibet and in West China. It resembles in flavour the finest Syrian tobacco, and is most agreeable when the smoke is passed through the nose. Under various names, it is cultivated at many places in British India.

Nicotiana tabacum, Linn. *N. Havanensis*, Lag.

Bujir blang, ARAB.	Dhumra-patra, . . . SANSK.
Taha, BURM.	Doon-kola, . . . SINGH.
Tamakhm, HIND.	Poghei, TAM.
Tumbaku, MALEAL.	Poghaku, TEL.
Sahastara-patra, SANSK.	

This species is the common tobacco, Virginian tobacco, *Herbe-à-la-reine*, sweet-scented tobacco, Orinoco and Maryland; it is herbaceous, with acuminate oblong-lanceolate sessile leaves, lower ones decurrent; throat of corolla inflated, segments of the limb pointed. This plant is a native of the West Indies, where it first became known to the Spaniards, and of Virginia, where the English first became acquainted with its properties. Of the various species, it is that which is most commonly cultivated in gardens as an ornament. It is largely cultivated in Europe for the purpose of smoking. It is grown over all the plains of the E. Indies, on the Himalaya up to 7400 feet at least, on the Chenab to 11,000 feet. This species is the one most commonly employed for making tobacco and cigars. Dr. Royle mentions that it

was introduced into India in A.H. 1014 (A.D. 1605), towards the end of the reign of Akbar. He quotes the authority of Pallas, Loureiro, and Rumphius, who think tobacco was used in China at a period anterior to the discovery of the New World. *N. tabacum* is much imported into Tibet, where it is called Tumma (probably a corruption of the Persian Tamakhu).—*Eng. Cyc.*; *Mason*; *Hooker, Him. Jour.*; *Von Mueller*; *O'Sh.*; *Dr. J. L. Stewart*. See Tobacco.

NICOTRIS, the queen-mother of the king of Babylon. She is said to have counselled resistance against Cyrus, but after a siege of two years, Cyrus drained the Euphrates into the trenches which he had dug around the city, and his soldiers entered it through the bed of the river, and opened the gates for the rest of his army, A.D. 539. Belshazzar was killed in the attack.

NIDANA, **SANSK.**, Nosology, also Nidana Sthana, medical treatises of the Hindus. Some of these, along with the writings of Charaka and Susruta, were translated and studied by the Arabs in the times of Harun-ur-Rashid and Mansur. Nidana, in Buddhism, indicates twelve conditions of existence,—ignorance, karmam or acts, consciousness, individuality, sensibility, objects of sense, sensation, desire or thirst, clinging to existence, birth, old age, and death or suffering.—*Barth*, p. 110.

NIEBUHR, a Danish traveller on the shores of the Red Sea, and between Bombay and Abushahr. *Niebuhria linifolia*, *Linn.*, and *N. oblongifolia*, *D.C.*, of the natural order Capparidaceæ, bear his name. They are of the Peninsula of India.—*Voy. en Arab.* (Amst. 1780). See Neibuhr.

NIGELLA SATIVA. *Linn.* *Var. Indica*, *D.C.*
 Shoonez, Hub-indi, **ARAB.** | Shiah-dana, . . . **PERS.**
 Sa-mung-net, . . . **BURM.** | Krishna jirake, . . . **SANSK.**
 Small fennel flower, **ENG.** | Kaloo-dooroo, . . . **SINGH.**
 Kala-jira, . . . **HIND.** | Karin siragum, . . . **TAM.**
 Magrila, | Nalla jilakara, . . . **TEL.**

This is the small fennel flower of the south of Europe, Egypt, Barbary, and the Caucasus, and extensively cultivated in India. It is the *Μελάνθιον* of Hippocrates, Steril, 675, and of Dioscorides, and the Githex of Pliny. The seeds, resembling coarse gunpowder, are triangular, black externally, internally of a greenish-white hue. They have a strong aromatic odour, and a flavour resembling saffron or cubebs, due to an essential oil, of which the seeds yield from 5 to 10 per cent. They are chiefly employed by the Indian hakim and baid, as aromatic adjuncts to purgative or bitter remedies. In eruptions of the skin, the seeds, reduced to powder and mixed with sesamum oil, are much used as an external application. The tincture is a useful, warm stimulant. In Bengal they are given to nurses, in the belief that they increase the secretion of milk; mixing the powdered seed with curry, to which, however, it communicates a very heavy and disagreeable flavour. To prevent injury to furs, feathers, books, papers, and clothes that are lodged in trunks, bookcases, etc., it is useful to place along with them small packets of camphor, or little cups of camphor dissolved in alcohol, and packets of *Nigella sativa*. Pieces of the roots of the *Aconitum ferox*, *Ati Singee* bish, or bishnak of the bazars, may also be used, but its highly poisonous effects on animal life require its use to be had recourse to with the greatest precaution.

Cups of carbolic acid are useful. The oil from *N. sativa* seeds is clear and colourless, but rather viscid. It is employed principally as a medicine. It is called jungle jira oil in Mysore.—*Rozb. ii.* p. 646; *O'Sh.*

NIGHASAN, a pargana in the Kheri district of Oudh. Bounded on the north by Khairigarh, from which it is separated by the river Sarju, the Chauka river marking the south boundary. The banks of these rivers have a broad fringe of khair, shisham, and gular trees, and the forests along the Sarju swarm with wild hog, deer, nil-gai, and antelopes, which do great injury to the crops. Tigers are seldom found, but leopards are numerous.—*Imp. Gaz.*

NIGHTINGALE is the bulbul of the Persians, in whose country it occurs. It is a species of *Luscinia* or *Sylvia*, and is the true nightingale. The bulbuls of the Muhammadans of British India are short-legged thrushes, the *Brachypodidæ*, and sub-families *Pycnonotinæ* and *Phyllornithinæ*. See Birds; Bulbul.

NIGHT OF POWER. Amongst Hindus, the seventh night of the seventh month of the seventy-seventh year of a man's age is termed *Bhima Ratri*, or Night of Power! and is considered the end of his natural life. After that a Hindu is considered exempt from all instituted observances.—*Wils. Gloss.* See Lailat-ul-Kadr.

NIHANG, a Sikh sect who believe in Nanak, but their manners and dress are quite different from those of other Sikhs. The Nihang sect were careless of their own lives, and consequently of those of others.—*Mohun Lal's Journeys*, p. 9.

NIKÆA, on the Hydaspes, a city mentioned by Alexander, supposed to be the present Mong or Mung. Mong is six miles to the east of Jalalpur, and the same distance to the south of Dilāwar. It is said to have been founded by Raja Moga or Muga, also called Raja Sankhar, meaning king of the Sakas or Sacæ.—*Cunningham, India*, p. 178.

NIKAH. **ARAB.** Marriage, amongst Muhammadans; *Nikah namah*, the marriage certificate. In Arabia, Egypt, and Persia, the nikah is the principal part of the marriage ceremony. In India, a marriage confined to the nikah is deemed disreputable, or it is with some person of inferior rank. In the case of a spinster of equal rank, the shadi or rejoicings lasting for five days, put all the religious ceremonial of the nikah into the shade. The nikah engagement, though inferior to the shadi form of marriage, is still respectable. It is common where the condition of the parties is too unequal to admit of one more public. *Nikah* and *shadi* are often in India used synonymously, as meaning the marriage or the marriage ceremonial of the Muhammadans. The nikah, however, is the form of words used by the Kazi in uniting the couple, and the shadi or rejoicings are all additional, and may be lengthened or curtailed at the will of the relatives. About Delhi, the ceremony of nikah would appear to be styled *Burat*. The shadi ceremonial in India is generally used only where the bride is a spinster and of equal rank with the bridegroom.

NIKARI. **BENG.** A fish-dealer, a fisherman; in Behar is a mullan or machua. A nikari is not the class which catches fish, but the caste which takes it from the fisherman and sells it in the market,

NIKUMBHA, in Hindu mythology, a rakshasa who fought against Rama. Also an Asura king of Shatpuri, who carried off the daughters of Brahmadata, the friend of Krishna. Krishna slew him, and gave Shatpura to Brahmadata.—*Dousson*.

NILAKANTHA, a name of Siva, from his having a blue throat, in consequence of having drank the poison produced at the churning of the ocean.—*Cole*, p. 390.

NILA KANTHA BHATTA, author of the Mahatta law-book Vyavahara Mayukha.

NIL DARPAN, a Bengali play; it means the Mirror of Indigo, Indigo Factory, and became the subject of a trial in Calcutta.—*Imp. Gaz.*

NILE, the great river of Egypt, is formed by the Bahr-ul-Abiad or White River, and Bahr-ul-Azrak or Blue River, and flowing northwards, it disembogues into the Mediterranean Sea. In 1846, the brothers Abbadie believed they had discovered its sources south of Abyssinia, in lat. 7° 49' N., and long. 34° 38' E., but subsequent travellers have shown that the brothers had given this title to the Uma, one of its affluents; that the true sources were greatly farther south, and the great Lake Ukerewe or Nyanza, which Captains Speke and Grant explored in 1862, is undoubtedly one source of the supply of the Nile waters. The Nile traverses Nubia, fertilizing Halfay, Chendy, Damer (where it receives on its right bank the Takazza or Athara), Chakye, Dongola, Mahas, Sukhot, Hajar, and Barabras. It enters Egypt at Assouan, in lat. 24° N., and runs almost directly from S. to N. to lat. 30° 12' N., where it divides into two branches, that of Rosetta on the west near Alexandria, and that of Damietta on the east, and both of which have seven distinct mouths. It has six cataracts in its course, but the only one of consequence is that of the ancient Philoe, the modern El-Birhe near Assouan, at the boundary of Egypt and Nubia. About the summer solstice the rise of the Nile is observed to commence above the last cataract. This rise becomes apparent at Cairo in the first days of July, and its progressive increase there is indicated by the Nilometer, which has been established at the extremity of the isle of Roda. For the first six or eight days its rise is almost insensible. Soon, however, its daily increase becomes more rapid. Towards the 15th August it has attained to half its highest rise, which it usually attains about the 20th or 30th September. When it has reached this stage, it remains nearly stationary for about 15 days, after which it begins to fall, but much more gently than it rose. By the 10th November it has fallen to half the height to which it had risen, and it continues to subside till the 20th of May of the following year, from which date there are no sensible changes until its rise recommences at the ordinary time of the year. The causes of its rise are now well known. During the hot months of the year, rain falls every day in Habbesh or Abyssinia, and all that rain-water is collected into the Nile, which, from its entrance into Egypt till it reaches the sea, runs through a wide vale. It does not rise alike high through all Egypt. In Upper Egypt the rise is about 30 feet, and at the Nilometer on Roda Island, at Cairo, the full height is 24 feet above its ordinary level. At Rosetta and Damietta it is only four feet. At Cairo, the Nile being confined to one channel,

between high banks, must necessarily rise to a much greater height than nearer the sea, where it is divided into two streams, after running over so much barren ground, and forming so many lakes. The branch upon which Rosetta stands is only 650 feet broad; and that by Damietta, not more than 100. Between the dyke of the canal of Cairo and the Nile, a pillar of earth is raised, nearly of the height to which the waters of the rivers are expected to rise. This pillar is called Arūs, or the bride, and serves as a sort of Nilometer, for the use of the common people. When the waters enter the canal, this bride is carried away by the current. A like custom, which prevailed among the ancient Egyptians, has subjected them to the imputation of sacrificing every year a virgin to the Nile. Nukta signifies, in Arabic, both a drop and the time of the sun's entering the sign of Cancer, at which season the great rains fall in Abyssinia, which occasion the swelling of the Nile. The rise of the Nile, as shown by the Roda Island Nilometer, is daily proclaimed in the streets of the metropolis, from its commencement, about the beginning of July (the Coptic month Baouneh), until it has attained the sixteenth cubit of the Nilometer. The Wifa-un-Nil (the completion or abundance of the Nile) is then proclaimed, generally between the 6th and 16th of August (or 1st and 11th of the Coptic month Mesra). On the day following, the Nile is admitted into the canal which traverses the city, and thereafter only the increase of the river above 16 cubits is notified. On the date the river reaches its greatest height, usually on the last days of September, the public cry of the river's state ceases, and the shaikh of the Nilometer becomes entitled to a fee from the Government for every digit of the river's increase.

NIL-GAI or Nil-gao, *Portax pictus*, J.

Damalis rizia, <i>H. Smith</i> .	<i>Antelope pictus</i> , <i>Pallas</i> .
<i>Tragelaphus hippelaphus</i> , <i>Ogilby</i> .	<i>A. tragocamelus</i> , <i>Pall.</i> , <i>Blyth</i> .
Maravi, CAN.	Roz, Rogh, Nil, Lil, HIND.
Guray, Guriya, . . GOND.	Manu potu, . . . TEL.

Is one of the largest and most magnificent of known antelopes, being upwards of four feet high at the shoulder. It is found throughout India, from the Panjab and foot of the Himalaya to the south of Mysore, being most abundant in Central India, frequenting thin forests, low jungles, and bushy, open plains. The male is about 6½ to 7 feet long, and height at the shoulder 4½ to 4½ feet. Its horns 8 to 10 inches long, and tail 18 to 21 inches; ear 7 inches, and very broad. It is of a grey slaty-blue with a white abdomen, and gives the name Nil-gao or blue bull. The cow is smaller, and of a dun colour. They rove in small herds of half-a-dozen or thereabouts, and sometimes the bull is found alone, and is occasionally ridden down and speared by British sportsmen. The skin of the bull is very thick and tough, and in demand as furnishing, from the neck and chest, an excellent material for the manufacture of native shields. It runs with a lumbering, ungainly pace. It is supposed to be the hippelaphus of Aristotle. It breeds in the Zoological Gardens of London, the female producing two calves at a birth.

NILGIRI or Neilgherry, a Native State in the Bengal Province of Orissa, lying between lat. 21° 18' 50" and 21° 37' N., and between long. 86° 29' and 86° 51' 30" E. Area, 278

square miles, and a population in 1872 of 33,944. It has valuable quarries of a black stone, from which are made cups, bowls, platters, etc. The aboriginal population is mainly composed of the Blumij race.

NILGIRI or Neilgherry Hills are a mountain mass in the S. of the Peninsula of India, Madras Presidency. The district comprises two distinct tracts of mountainous country, between lat. $11^{\circ} 12'$ and $11^{\circ} 37' N.$, and long. $76^{\circ} 18'$ and $77^{\circ} 51' E.$ One of these tracts is the Neilgherries proper, and the other the Kundas. The total area of the Neilgherry district is 957 square miles. The surface of the Neilgherries proper is undulating, and not much wooded, and the fall to the plains sudden and abrupt. The Kundas are in the south-west angle of the Neilgherries. They are a mass of mountains, which throw off spurs to the south almost as far as the Ponany river, and the innumerable valleys between the spurs have a rich, fertile soil. In the elevated land to the N. and W. of the Pykara river, on the whole of the Kundas, and the N.E. portion of the plateau called Kodanad, are extensive forests. The highest mountain on the Neilgherries is Dodabetta, and from it to the E. foot of the Kundas the land falls continuously. The highest peaks are—Dodabetta, 8760 feet; Kudlakad, 8502; Bevo-betta or Beroyabetta, 8488; Makurti, 8402; Davarsolabetta, 8380; Kunda, 8353; Kundamoge, 7816; Ootacamund, 7361; Tambrabetta, 7292; Hokabbetta, 7267; Urbetta, 6915; Kodanad, 6815; Davebetta, 6571; Kotagherry, 6571; Kunda-betta, 6555; Dimhatti, 6330; Coonoor, 5886; and Rangasawmi peak, 5948. The area of the district is 978 square miles. The ghats or passes leading up to the plateau are the Coonoor, Segur, Gudalur, Sispara, Kotagherry, and Sundapatti.

The general elevation of the table-land differs a little in the three principal divisions. That of the Kunda range may be estimated at 7600 feet. The central portion at 7100 or 7200, and the Kotagherry division at 6000. The Kunda range forms the seaward bank of the Neilgherries with a very steep slope towards the Malabar coast. It attains at its higher parts an elevation of 7500 to 8000 feet above the sea. The Kunda or Sispara ghat or pass which leads to Calicut is 6742 feet above the sea. The Kundas rise abruptly from the plain, bordered by several precipices of great height, and accessible only at one or two points. The upper surface is intersected by narrow, deep valleys, thickly dotted with wood, and presenting some most picturesque scenery. A prolongation of the Kundas to the north is called the Neddimulla range, and forms a narrow ridge, shooting up into sharp peaks, and bordered by lofty precipices on the west. On the inner side, the Kundas sink into a lower range of table-land, formed by a succession of low, rounded hills and valleys, less richly wooded, and bounded to the east by the great central range of Dodabet, running completely across from north to south. This is the highest point of the hills, being 8730 feet above the sea. On the west side of the Dodabet range, immediately below the highest summit, is Ootacamund, situated in a basin surrounded on all sides by high hills. At the northern extremity of the range is Coonoor, from which a magnificent gorge descends to the plain of Coimbatore. A corresponding fissure on the north, but much less deep

and not so picturesque, is the Segur ghat, which gives access to the hills from Mysore and the north. After crossing the Dodabet range, the country sinks considerably, and is covered with Badaga villages and cultivation for some miles, when it again rises into long grassy ranges like the Kundas, but without the lofty peaks which distinguish the latter. At the commencement of the rise is situated Kotagherry, and a little to the north a deep valley running east and west descends abruptly into the low country, and is known as the Orange Valley, from containing a number of wild orange trees. It also contains a picturesque waterfall of some height. The descent from the table-land of Kotagherry, though less abrupt than that of the Kundas, is sufficiently sudden to present a bold and imposing aspect when viewed from below. About the middle of the east face, nearly opposite the Guzzelhutti pass, which ascends into Mysore, is the old Jackanairy pass (5659 feet), which for many years was the only practicable access to any part of them. The views on the Kundas are bold and magnificent. Those towards and near Ootacamund, more pastoral; and in the vicinity of Kotagherry, richer and more agricultural. Several considerable streams unite to form the Bowani river, which, descending by a succession of beautiful falls into a most romantic gorge, forces its way through the southern edge of the table-land, where it makes an abrupt turn to the east, and flows along the whole southern aspect of the hills till it meets the Moyar, descending in a similar manner, and with similar accompaniments of scenery, from the northern face.

The mean annual temperature of Ootacamund is 58° to 68° . The annual range is considerable, being equal in some years to 38° , the highest observed temperature in the shade being 77° , and the lowest 39° . The mean daily range is 17° . The hygrometrical state of the atmosphere varies from intense dryness (from January to May) to saturation, with moisture, during the monsoon, and evaporation is in almost direct ratio with the dryness of the air. January, February, and the half of March are uniformly fair, clear, and dry. The nights are very cold, and hoar-frost is almost always to be found in valleys and sheltered situations towards morning, disappearing as the sun acquires power. The air in the shade is always cold, but the rays of the sun are very powerful. Rain seldom occurs before the end of March, when the air becomes milder, and there are generally a few heavy showers. April and May are mild, pleasant months, with frequent heavy showers and thunderstorms. In June the S.W. monsoon sets in; in general 10 or 14 days later than on the Malabar coast. At first the rain is pretty constant and heavy, but during the whole continuance of the monsoon, that is, till the middle or end of September, there are frequent intervals of most delightful weather. October is an uncertain month, being occasionally blustery and showery, occasionally very fine and dry, according as the N.E. monsoon occurs, early or late. November is showery and unpleasant, but after the occurrence of some heavy fogs in the early part of December, the frost sets in, and the weather becomes dry, cold, and bracing. The seasons are subject to great fluctuations, almost as much so as in Europe. The climates of Kotagherry and

Coonoor are considerably milder than that of Ootacamund, and there is also some difference in the seasons, the S.W. monsoon being comparatively light at both these stations, while the N.E. is heavier.

The Neilgherries had been traversed by a party of pioneers under Captain Bevan and Dr. Ford in 1809, and were partially surveyed under the direction of Colonel Morrison in 1812. About the year 1819, they were ascended by Messrs. Whish and Kindersley in pursuit of a band of smugglers, and their report led to Mr. Sullivan establishing himself there, and ultimately to their being selected as a convalescent station. The remains of two forts are still to be seen, each of which was used as a state prison, and was occupied by a small garrison in the time of Hyder Ali and Tipu Sultan. The Neilgherries have been occupied since 1826, and European settlers are now established in some numbers. In 1881 the population was 91,034. The mountain races, Badaga, Irular, Kotar, Kurumbar, and Todawar have hamlets and villages in different parts of the hills, but the European stations are Ootacamund, Wellington or Jackatalla, Coonoor, and Kotagherry. Ootacamund has no accommodation for troops. Wellington is almost exclusively a military station. Kotagherry is 16 miles and Coonoor 10 miles distant from Ootacamund. Dim-hati is between Kotagherry and the Orange Valley.

Ootacamund is picturesquely situated in the basin formed by the central chain of Dodabet, from which two considerable spurs run in a semi-circular direction to the west, and completely enclose it on all sides except the W.N.W. On the subordinate hills and interjacent valleys, houses are perched at the summit or sheltered in the nooks, and the terre-plaines of the valley is advantageously occupied by a long narrow lake, formed by an artificial dam, which closes it to the west, and retains all the waters of the basin. Kotagherry is preferred by those who, from long residence in India or natural delicacy of constitution, are unpleasantly affected by the suddenness of the transition from the low country. This remark applies still more strongly to Coonoor, the climate of which is a shade milder than Kotagherry.

The *rainfall*, which is excessive to the westward, is much diminished before reaching the axis of the chain; at Dodabet it is 100 inches, and at Ootacamund only 64 inches.

European settlers are chiefly engaged in coffee-planting, tea-planting, and cinchona-planting. The Toda are the oldest of the inhabitants. Their language is partly derived from the Hala or ancient Canarese. Each mund or village has a separate and somewhat larger house set apart, and sacred, as a dairy, into which women are not allowed to enter. They subsist by the produce of their herds, receiving also a ground-rent in kind from the Badaga and Kota, who acknowledge them as the lords of the soil. They are polyandric, the brothers of the family having only one wife in common; female infanticide long prevailed. They slaughter buffaloes at funerals, attended with some ceremonies. They appear to be decreasing in number. Females number about 3 to every 5 males. Their sole occupation is cattle-herding and dairy work. The Toda worship their dairy buffaloes, the buffalo bell, and several deities.

The Badaga or Vadaga, by far the most numerous race on the hills, some time in the middle of the 16th century quitted their original location in Mysore to escape from oppression. They are almost entirely employed in cultivation, but they keep large flocks and herds of cattle, and readily act as labourers, etc. They are industrious; their numbers are increasing, and their villages are populous and thriving.

The Kota race have habits like the Chucklers below. They are looked down upon by the Badaga from their eating offal, but they are industrious, and are the artisans of the hills, making and repairing ploughshares and other agricultural implements, as also the silver ornaments worn by the Toda and Badaga women and children.

Kota (properly Gaubatar, from the Sanskrit Gau, a cow, and Hata, slaying, i.e. cow-killers), are well made. They worship two silver plates, which they regard as husband and wife; they have no other deity.

The Irular (or benighted ones, from the Tamil word Irul, darkness) live on the lowest slopes and forests extending from the base of the Neilgherries to the plains, and are not, strictly speaking, inhabitants of the hills.

The Irular and the Mula-Kurumbar inhabit the wildest recesses of the jungles on the skirts of the hills, where they erect wretched huts, surrounded by a little wretched cultivation. The other inhabitants attribute to the Kurumbar every piece of ill-luck that befalls their cattle or themselves. In the year 1835, after a severe murrain had prevailed among the cattle, the Kurumbar to the number of 50 or 60 were assembled to a feast, and in the height of their merriment were cruelly massacred by the Toda race, scarcely one escaping. Massacres have since then repeatedly occurred, and in 1882 a whole family were destroyed. The Irular are fowlers, and subsist on forest produce. The Kurumbar are taking to labour on the estates.

Dr. Jerdon records 118 species of birds, residents of or visitors to the hills, mostly of tropical genera.

A large number of rude stone monuments—cairns, barrows, kistvaens, and cromlechs—are found all over the plateau. The cairns consist of circles of stones, some of them in their inside faced with slabs, others outside surrounded by heaped stones. The kistvaens are found below Kotagherry. They contain pottery with a rich red glaze, and clay figures with a high Tartar head-dress. These remains are not claimed by any race now on the hills. The most numerous are the cairns and barrows, which resemble each other, and which are found most often in groups and on the tops of hills and ridges.—*Imp. Gaz.*; *Dr. Benza in M. L. S. J.*; *Harkness' Neilgherries*; *Birch's Neilgherries*; *Baillie's Neilgherries*.

NILHO. SINGH. A Ceylon plant. When its blossom fades, the seed forms a sweet little kernel, with the flavour of a nut. The bees now leave the country, and the jungles suddenly swarm, as though by magic, with pigeons, jungle-fowl, and rats. At length the seed is shed, and the nilho dies.—*Baker's Rifle*, p. 305.

NIL-KHENT, a small village of Nepal, situated at the base of Mount Sheopuri. Its inhabitants are liable to be attacked with a pen-dulous tumour of the ear.

NILOMETER, Mikyās.

Nilometre, . . . FR. | Nilometrion, . . . GR.
 Niloscope. . . . " | Neiloscopion, . . . "

Apparatus for measuring the rise of the Nile has been in use from the most ancient times; the portable instruments were entrusted to the priests of the god Serapis, who alone were permitted to use them, and who kept them religiously in their temple; but the kings of Egypt created fixed instruments at different parts of the river, and are noticed by Herodotus, who travelled through Egypt, and resided at Thebes, Heliopolis, Memphis. Strabo travelled in Egypt in the early years of the Christian era, and, when speaking of the island of Elephantina, he says that it had a town with a temple to Cneph and a Nilometer.—*Millet*, p. 21; *Sharpe's Egypt*; *Niebuhr's Travels*.

NIMACH or **Neemuch**, a village and British cantonment in the Gwalior territory, part of the possessions of the Maharaja Sindia, in lat. 24° 27' 38" N., and long. 74° 54' 15" E., and 1476 feet above the sea. It is near the western boundary of Malwa, adjoining the Mewar territory.—*Imp. Gaz.*

NIMA QUASSIOIDES. *Hamilton.*

Simaruba quassioides, Don.

Bera, Puthorin, CHENAB.	Pesh, Birjo, . . . SUTLEJ.
Mathu, Mont, . . .	Khaibhar, . . . "
Berning, RAVI.	

A tall, straggling plant, common in places in the Panjab Himalaya from the Sutlej to the Chenab, at from 3000 to 9000 feet. It is browsed by goats and sheep, and in Chamba the leaves are applied to itch. In some parts the red fruit is eaten. The wood is light-coloured and very bitter, and has long been used for killing insects; latterly recommended in fever by M. Macardieu.—*Stewart*.

NIMAR is the most westerly district in the Central Provinces of British India, between lat. 21° 4' and 22° 26' N., and long. 75° 50' and 77° 1' E., with an area of 3340 square miles, and a population in 1872 of 211,176. Its average elevation is about 1000 feet. It consists of the valleys of the Tapti and Nerbadda, separated by a range of mountains. It has often changed hands since the 10th century A.D., and is still a border-land. It has had successively as rulers, the Tak, the Asir, Chauhan, the Muhammadans, the Mahrattas, the Hyderabad dynasty, and now the British. The poet Chand mentions the Ahir as leaders in the Hindu armies, battling in Northern India against the Muhammadan invaders. Between the 9th and the 12th centuries, the Jain religion was paramount, and numerous remains of their finely-carved temples, etc., yet remain at Wuu, Barwani, and other places in Prant Ninnar, and at Khadwa, and near Mandhata. Tigers, leopards, bears, wolves, sambar (Rusa Aristotelis), spotted deer, bison (*Bos frontalis*), nil-gai (*Portax pictus*), and wild hog abound in the district and in the upper part of the valley of the Tapti.

NIMBU. **HIND.** *Citrus acida*, *C. bergamia*, *Risso*. Bajauri nimbu, *Citrus medica*. Mitha nimbu is *Citrus limetta*. Ward says (ii. p. 12) the nimbu tree supplies the images of Vishnu in his different forms, also of Durga, Radha, Lakshmi, Siva, Garuda, Chaitanya, etc. Wooden images are not kept in private houses, but in

separate temples. They are generally from one to three cubits in height.

NIMBUS, or gloire, or circular disc, is sculptured at the back of the heads of the figures on the Jamalgi and Amraoti sculptures. The glory surrounding the heads of Tibetan deities is alluded to by Ermann, who recognises in it the Nimbus of the ancients, used to protect the heads of statues from the weather, and from being soiled by birds; and adds that the glory of the ancient masters in painting was no doubt introduced into the Byzantine school from the Buddhist.

NIM-CHAH, a half-breed race, on the southern slope of the Indian Caucasus, between the Afghans and the higher peaks. They speak a language related to the Indian tongues, but possessing a curious affinity to Latin. In the lower country, the people near the debouchure of the Kashgar river speak a mixed tongue called Lughmani.—*Campbell*, p. 146.

NIMCHAK. **HIND.** A well-curb; curved pieces of wood used as the foundation of the circular masonry of a well.

NIMI, son of Ikshwaku, and founder of the dynasty of Mithila.—*Dowson*.

NIMKHAR or **Nimsar**, a town in the Sitapur district of Oudh, situated on the left bank of the Gumti. It is a place of great sanctity, with numerous tanks and temples. A legend relates that it was in one of these holy tanks that Rama washed away his sin of having slain a Brahman in the person of Ravana, the demon king of Ceylon, who had carried off his wife Sita.—*Imp. Gaz.*

NIMROD or **Nimrud**, a chief mentioned in Genesis x. 8-12, as a mighty hunter ruling in Babel, Erech, Accad, and Calneh, in the land of Shinar, and Resen between Nineveh and Calah. George Smith supposed him to be Izdhubar, a local Babylonian chief, ruling at Erech, the modern Warka, over the country from the Armenian mountains to the Persian Gulf. Professor Sayce says (*Fresh Light*, p. 51) that his name has not yet been discovered in the cuneiform records. A mound about 9 miles from Baghdad, a ponderous mass of ruin, is called by the Arabs Tull Akerkounf, and by the Turks Nimrud Tapasi, both which appellations signify the mound of Nimrud. The ruined city near the mouth of the Upper Zab, now usually known by the name of Nimrod, is called Ashur by the Arabic geographers, and in Athur we recognise the old name of Assyria, which Dio Cassius writes Atyria, remarking that the barbarians changed the Sigma into Tau. Xenophon, in his account of the Retreat of the 10,000, makes mention of a pyramid in a town called by him Larissa. It is probable that the mound marks the site of that place, which the Turks generally believe to have been Nimrod's own city; and one or two of the better informed with whom Rich conversed at Mosul, said it was Al-Athur or Ashur, from which the whole country was denominated. Assyriologists, however, mention Calah as a large city about 20 miles south of Nineveh, now represented by the mounds of Nimrud Resen, a city lying between Calah and Nineveh, supposed to be represented by the modern Salamiyah. Professor Sayce says (*Fresh Light*, p. 50) a few miles to the south of Nineveh, on the site now known as Nimrud, was Calah, a town built by Shalmaneser I., who lived B.C. 1300. Calah subsequently fell into

ruins, but was rebuilt in the 9th century B.C.—*Mignan's Tr.* p. 102.

NIM-SIM. HIND. Boundaries of lands; a grant on copper-plate enumerating revenues (hasil), contributions (burar), taxes, dues (lagut be lagut), trees, shrubs, foundations, and boundaries (nim-sim): the sovereign can only alienate the revenues (hasil), and not the soil. The nim-sim is almost as powerful an expression as the old grant to the Rawdons:—'From earth to heaven, from heaven to hell, for thee and thine therein to dwell.'—*Tod's Rajasthan*, p. 564.

NINEVEH, an ancient historical city, frequently mentioned in the Hebrew Bible. It was built on the eastern bank of the Tigris, opposite the modern town of Mosul. It was 8 miles round, was well fortified, and contained a large population and numerous merchants (*Nahum* iii. 16). It was long the capital of the Assyrians, a Semitic race, and seems to have been a populous city in the 19th century B.C. It was finally overthrown, B.C. 606, by the confederate armies of Nabopolassar of Babylon, Necho of Egypt, Cyaxares of Media, and the king of Armenia, and in the assault its monarch Assur Ebil-ili set fire to his palace, and perished in the flames. The Assyrians worshipped Assur, Nebo and his consort Urmitu, Merodach and his wife Zirratanit, Ishtar (Astarte), Nirgal, Ninip, Vul, Anu, and Hea. They had many libraries of clay tablets in cuneiform characters. Their religion, science, literature, and method of writing were derived from Babylon.

Mr. George Smith estimated that there were over 10,000 inscribed tablets in the royal library at Nineveh. By far the greater number of the tablets brought to Europe from there belong to the age of Sardanapalus, who reigned over Assyria B.C. 670.

When visited by Jonas, who was sent thither by Jeroboam, king of Israel, it was three days' journey in circumference. Diodorus Siculus, who has given the dimensions of Nineveh, says that it was 480 stadia, or 47 miles, in circuit; that it was surrounded by a wall and towers, the former 100 feet in height, and so broad that three chariots might drive on it abreast; and the towers 200 feet high, and amounting in number to 1500. The numerous mounds indicate great vicissitudes; and so utter was its destruction, that though in B.C. 400 Xenophon must have passed within a few miles of its site, he makes no mention of it; and Lucian, a native of Samasata, near the Euphrates, living between A.D. 90 and 180, states that its site could not then be pointed out. Mr. Rich, however, in 1820, detected it in the mounds opposite Mosul; and M. Botta in 1843, and Mr. Layard in 1845, obtained numerous sculptures from it. Sir Henry Rawlinson and George Smith have also been discoverers.—*Kinnear's Geographical Memoir*; *Layard's Nineveh*; *Bunsen*; *Chesney*.

NINGPO lies in lat. 29° 45' N., and long. 121° 22' E.; is situated on the banks of the river Yung or Tac-hae, and in the province of Chekiang. Ningpo is about 12 miles distant from the sea, being in a westward direction from the cluster of the Chusan islands. Over the river is a bridge constructed in a most ingenious manner. Ningpo was taken 13th October 1841 by the British. It is the point of convergence of an

extensive river and canal system, and occupies a commanding position with reference to the Chusan Archipelago.—*Sir's China*.

NIPA FRUTICANS. Roxb.

Cocos nypa, Lour. | Do-ri, BURM.
Gabra, Gulga, . . BENG. | Atap, MALAY.

A stemless palm, very abundant in the tidal waters of the Sunderbans, in Tenasserim, the Malay Peninsula, and Eastern Archipelago, throwing up pale yellow-green tufts of feathery leaves from a short, thick, creeping stem, and bearing at the base of the leaves its great head of nuts, which float on the waters and vegetate in the mud. Nuts of a similar plant abound in the tertiary formations at the mouth of the Thames, buried deep in the salt and mud that now forms the island of Sheppey. Like other palms, it yields a wine by the usual process, and in some parts of the Archipelago, particularly in the Philippines, it is cultivated for its wine. Its principal use, however, is for the leaf, usually called Atap, the common term for thatch among the Malays, but specially applied to the leaves of this palm, because among that people it is almost the only material used for that purpose. But the nipa leaf is also used for the fabrication of coarse mats. The small, insipid, pulpy kernels (buah atop) are sometimes preserved as sweetmeats. The tuba, or juice, is extracted from the tree whilst in its flowering state, in the same way as that of the cocoanut tree, and afterwards distilled by a similar process: but it is more spirituous, from six to six and a half jars being sufficient to yield one of wine. It is convertible into syrup, sugar, vinegar, yeast, and a strong spirit.

NIPUR, or Calneh of Hebrew Scripture, is the modern Niffer. It was founded under the second ruling dynasty of Berosus, to which is assigned the date of B.C. 2286.

NIRADI-MOOTOO, TAM., of Ainalie, is the seed of *Hydnocarpus inebrians*, *W. and A.* The oil was sent to the Madras Exhibition under the various names of Niradi-mootoo, jungle almond, Maroty, Tamana, Maravetti, Nirvetti, and Soorty. It is in great repute as a medicine amongst native practitioners, and the kernel enters largely into their prescriptions. It much resembles almond oil, but is rather thicker.

NIRANG. HIND. The liquid excreta of the cow; largely used by the Hindus in their purificatory rites, and in houses, and taken internally.

NIR-ANJAN. BENG. The Hindu rite of casting an image into the water after a festival dedicated to its worship.

NIRBISI, HIND., is sometimes said to be the root of a species of aconite, but is generally supposed identical with jadwar or zadwar, the zedoaria of old writers. *Curcuma zedoaria*, *Roxb.*, also *Kyllingia monoccephala*. Bara nirbisi is the *Scirpus glomeratus*. In Sirnur the root of *Delphinium pauciflorum* is also called Nirbisi.

NIRGUNA. In Hindu metaphysics there are three Guna,—Satya-guna, or property of truth, the source of purity and wisdom; the Rajo-guna, or property of foulness, the source of passion and error; and the Tamo-guna, or property of darkness, the source of inertness and ignorance. Deity, abstractedly, is Nirguna, or without any of the three properties.—*Wilson*.

NIRIKH. HIND. A price list, a fixed rate for labour or produce supplies. It was in operation

in British India until the early part of the 19th century, but has been steadily put down.

NIRMALI, nude ascetics of the Sikh sect, who dedicate themselves exclusively to a religious life. They are nearly naked. Sherring describes the Nirmali as of a Vaishnava sect of Benares, who devote all their time to the one purpose of keeping themselves clean. They bathe many times, and wash their hands 108 times daily. They do not separate themselves from their families, but they refrain from touching even their children, lest they should be defiled. They are very careful not to take the life of any creature. Women as well as men belong to this sect.—*Sherring's Hindu Tribes*, p. 263.

NIR-MASOR, an antidote for opium, sent from the Panjab to the Exhibition in London in 1862.

NIRRIṬI. **SANSK.** Death, decay; death personified as a goddess, the wife or the daughter of Adharma. The Hindus of Shikarpur, on the Indus, in August 1884 prepared a huge hideous image of an earthen deity representing fear. The image wore a dreadful appearance. About 7000 people celebrated the death of this god. An old woman sat by the image, representing the mother of the dreaded deity. A circle about 50 feet in diameter was formed round the image, in the midst of which moved hundreds of spectators, men and women, crying at the top of their voice, 'Fear is dead!' 'Fear is dead!' The old woman near the image, on hearing of the death of her son, broke out into lamentable strains, mourning the loss of her beloved son, the god of fear. Some women, again, reverently approached the idol, kissed its feet, and scattered fullahs upon it to propitiate its anger.—*Dowson*.

NIRUKTA, in Sanskrit grammar, etymology. That of Yaśka is a model of method and conciseness, but it is far surpassed by that of Panini, which was compiled in the 4th century B.C., about 4000 short rules in eight books. Panini also compiled a list of 1700 roots (dhatu) or elements.—*Sayce*, i. p. 42.

NIRVĀNA or Nigban is the Tibetan Nyangan; in Buddhism, final emancipation, a Buddhist idea of annihilation, or the spirit's absorption. Bunsen asserts it to mean the absence of desire in this life, inward peace; but M. St. Hilaire, M. Eugene Burnouf, and Prof. Max Muller identify Nirvana with absolute annihilation, the pure not-being, in which there is no absorption in the higher life of the uncreated essence, no consciousness of peace and freedom from evil, but the loss of being and consciousness at once,—a blown-out candle. This doctrine is shadowed forth in the despair of Job and Jeremiah, in the deep melancholy of Ecclesiastes, in the choruses of Sophocles, the Apologia of Plato, and in the soliloquy of Hamlet; yet this has nowhere led to suicide as the path to Nirvana, but to fasting, prayer, almsgiving, and self-sacrifice. But the doctrine was offered to people who held to the belief of a natural immortality and metempsychosis, to whom death brought no sure deliverance, but might lead to ills greater than in this world, new forms of human or brute life more miserable than what they had passed through. The life of self-sacrifice of Buddha, his voluntary acceptance of poverty, his proclamation of a universal brotherhood, and his making war on the caste system, are remarkable features of his career. But after him Brahmanism rose triumphant, and

drove Buddhism into other lands, and the region of Sakya Muni's birth and labours became a place of pilgrimage to peoples from distant countries. The Nirvana of Sakya Muni, according to the Raj-guru of Assam, occurred in the 18th year of Ajatara Satru, and 196 years before Chandragupta, the contemporary of Alexander, which may agree thus: 348+196=544.—*Bunsen, God in Hist.* i. p. 5.

NIRWA. **Guj.** Lands held in commune in the Kaira and Ahmadabad districts.

NISÆA, the Nisaia of Ptolemy, called also Nisa and Nisæa, a city on the Upper Oxus, was the chief town of the district in Northern Parthia famous for its breed of horses, bordering on Hyrkania and Margiana. The fourth settlement of the Aryans.—*Bunsen*.

NISAETUS BONELLI. *Temm.*

Aquila intermedia, Bonelli. | *Nisetas niveus, Jerol.*

M'hor-angah, . . . **HIND.** | Rajali, . . . **TAM.**
M'hor-angi, . . . " | Kundeli, small, . . . **TAL.**

This crestless hawk eagle is about 27 inches long, and is found throughout India, in the hilly and jungly districts. It preys on game birds and peafowl, ducks, herons, and water-fowl.

NISARNA. **HIND.** To blossom; the blossoming of sugar-cane is thought very unlucky.

NISHADA of the Sanskrit writers, a race who seem to have been occupants of part of India prior to, and opponents of, the Aryans; wild, barbarous forest and mountain tribes. It is applied in the Vedas to the ancient aborigines of India, and Professor Max Muller proposed to use the words Nishada languages to all the non-Aryan tongues.—*Wils.*

NISHAPUR, a district of Khorasan, in Persia, to the west of Meshid. Nishapur town is in lat. 36° 12' 20" N., and long. 58° 49' 27" E. It was built by Tapamur or Taimuras, a prince of the Peshdadian dynasty, who called it Abarshahr. It was taken and destroyed by Alexander, was again taken by the Arabs, the Turkomans took it; and in 1220, Kuli Khan, son of Chengiz Khan, took it and massacred about two millions of people of the adjoining territory; since which date, Mongol, Turkoman, and Uzbek have repeatedly plundered it. A glen 40 miles west of Nishapur is celebrated for its turquoise mines. The hills are of porphyritic conglomerates, claystone porphyry, and other porphyritic rocks of various colours. There are six mines from which the turquoise is obtained. Some of the mines are in the centre hill of the range, another near the summit, and the Kamari mines are pits sunk in a similar rock.

NISHKRAMANAM, a domestic ceremony of the Hindus, at which the child, when three months old, is taken out of doors and shown the moon in the third light fortnight.

NISHNI-NOVGOROD, a Russian town on the Volga, 250 miles from Moscow, celebrated for the large concourse of people resorting to its fair. The Asiatics at the Nishni market are mostly Russian subjects; Caucasians, Armenians, Tartars, and inhabitants of Tashkend are numerous. Among the Asiatics not subject to Russia, Persians and Bokharians are most frequent. A few Chinese are sometimes seen. Of the few visitors from Western Europe, 95 per cent. at least are Germans. Mixed with them are Polish Jews, among them many wealthy dealers in costly furs.

NISIBIS, a fort situated between the Tigris and Euphrates, the possession of which was contested

by the Romans and Persians. It was taken after Shahpur had subdued Armenia. Persian authors term this fort Nisibyn and Nisibi. It has long been celebrated for its white roses.—*Malcolm's Persia; Catafago.*

NISUNG. Scotch farmers plait the first corn cut threefold, and fix it over the chimney-piece till next harvest, when it is renewed. The Tartars of Nisung use three ears of barley, which they paste outside above the door. At Nisung there was not a house in the village but was ornamented in this way. The Tartars are called by the Kanawar inhabitants of the lowest parts, Zhad, Bhotia or Bootuntce, and their country is often named Bhot and Bootunt.

NITI, a pass in Garhwal district, in lat. 30° 46' 10" N., long. 79° 51' 50" E.; the crest is 16,570 feet; village of Niti, 11,464 feet. It is open from the end of June to October. Niti is considered the best pass between Kamaon and Tibet, and is one of the principal channels of trade between Chinese Tartary and Hindustan.

NITIKIN, ATHANASIUS, a Russian traveller who visited India in the 15th century. He started from Twer in 1468, and descended the Volga to Astracan, and on to Baku, thence to Bokhara? He then returned to Masandaran and southwards to Hormuz, from which he crossed the Arabian Sea to Muscat, sailing from thence to Gujerat and Cambay. He seems to have visited Junir, Beder, Kulburga. He re-embarked from Dabyl (Dabul) for Hormuz, from which he proceeded through Shiraz, Isfahan, Tabreez, to Trebizond, crossed the Black Sea to Caffa or Theodosia in 1474. He describes the commerce and products of Hormuz, Cambay, Dabyl, Calicut, Ceylon, Beder, and Bijanagur.

NITI-SASTRA. SANSK. Works on morals and polity.—*Dowson.*

NITRARIA TRIDENTA, a plant of Tunis, the true lotus of the loto-phagi; this and Nitraria sooberi, the berry of which is the chief luxury of the tribes of the Caspian desert, might be introduced into India.

NITRATE OF SODA, or cubic nitre, is being imported into Great Britain in increasing quantities.

1881, . . .	1,080,512 cwt.	£789,949
1882, . . .	1,915,138 „	1,270,352
1883, . . .	2,049,270 „	1,168,088

NITRIC ACID, Aquafortis.

Maulabker, . . .	ARAB.	Arak-i-shora, . . .	PERS.
Acide nitrique, . . .	FR.	Aqua forte, . . .	PORT.
Salpêtre saure, . . .	GER.	Vedi-lunu-rasa, . . .	SINGH.
Shore ka tesab, . . .	HIND.	Pettluappu dravagum, TAM.	

When pure it is colourless, but as met with in commerce it is yellowish, owing to its containing nitrous acid in solution; besides which it is often highly diluted, and mixed with sulphuric and muriatic acids. It is exceedingly corrosive, and its taste is sour and acid. It is employed in metallurgy and assaying, for etching on iron and copper, in dyeing and in medicine. It is made in Lahore, by acting on pure nitrate of soda with a quantity of sulphuric acid. This sort is used for the purification of silver, and the formation of the nitrate. A less pure kind is made by the action of Kahi (impure sulphate of iron) on nitre, but this is rather a mixture of nitric and hydrochloric acids, and will dissolve gold-leaf.—*Royle; Faulkner; Powell.*

NITRO-MURIATIC ACID, Aqua regia.

Eau regale, . . . FR. | Königswasser, . . . GER.

The Acidum nitro-muriaticum, Acidum nitro-hydrochloricum, is of a golden-yellow colour, with the suffocating odour of chlorine, and the irritant corrosive properties of the strong acids. The manufacturers mix gradually in a cooled vessel, and where the fumes can easily escape, nitric acid 1 part, muriatic acid 2 parts (both by measure). They keep the mixture in a well-closed bottle in a cool, dark place. The resulting acid is not a mere mixture of the two acids, for both become decomposed. It is distinguished by the property of dissolving gold.—*Royle.*

NITYANAND, a disciple of Chaitanya, who resided at Khardah, in Bengal, on the left bank of the Hoogly river. His descendants are regarded as gurus. It is a place of Vaishnava pilgrimage. The name is from Nitya, constant, and Ananda, joy.

NI-WO-SON, JAP. (lit. two honoured kings), are two figures placed under the Niomon or gateway of Buddhist temples in Japan, the guardians of the right and left. They are erect figures, with flowing robes on. Yo, on the right, represents the male principle of Chinese philosophy; it is red, and its mouth is open. That on the left is green, with mouth closed, and is In, the female principle. Small prints of these are pasted on the beams over the entrances of houses to protect them from thieves. The Chinese names are Yin-Yang.—*Sir J. E. Reid.*

NIZAM, an Arabic word meaning order, disposition, arrangement, constitution, and variously applied. Nizam-i-jadid, the new system of government introduced into Turkey by Sultan Mahmud II. in 1826, particularly the employment of regularly disciplined troops. Nizam has become, in common parlance, a title of the sovereign of Hyderabad in the Dekhan, being part of the original title, Nizam-ul-Mulk, bestowed on the founder of the Asaf Jahi dynasty now ruling there.

NIZAMANI, a Baluch tribe in Sind, following settled pursuits. They take their name from Nizam, a common ancestor, though now subdivided into separate clans or houses. They are well educated in Persian, Sindi, and Arabic.

NIZAMI, the literary title of Nizam-ud-Din, Ganjawi, a celebrated Persian poet who resided at the court of Bahram, a distinguished patron of letters. He died in A.H. 576 or A.D. 1180, but 1194 and 1209 are also stated. He compiled his Sikandar Namah, or History of Alexander, from Jewish, Christian, and Pehlavi records, by which we may suppose him to mean Hebrew, Greek or Latin, and old Persian manuscripts. It is one of the most celebrated romances of the east. He also is the author of the Makhsan-ul-Asrar, Isili-wa-Majnun, Khusr-u-wa-Shirin, and the Haft Paikar.—*Ouseley's Travels*, ii. p. 362.

NIZAM SHAHI, a Muhammadan dynasty that ruled at Ahmadnagpur A.D. 1490-1607. Ahmad Nizam Shah, the founder, was a Brahman of Bijapur, who was taken prisoner and sold as a slave to the Bahmani king of the Dekhan, where he became a convert to the Muhammadan faith. At its greatest extent, the kingdom of Ahmadnagpur comprehended all the subah of Aurangabad, all the west of that of Berar, and a portion of the sea-coast in the Konkan between the tracts belonging to Gujerat and Bijapur. Duels were common under this dynasty. In one invasion of Bijapur,

600 guns were lost, amongst them a brass gun now on the ramparts there. It is the largest brass gun in the world.

	A.D.	A.H.		A.D.	A.H.
Ahmad, . . .	1490	896	Ismail, . . .	1588	997
Burhan, . . .	1608	914	Burhan II., . .	1590	999
Husain, . . .	1563	961	Ibrahim, . . .	1594	1003
Murtazza, . .	1665	972	Ahmad II., . .	1594	1004
Miran Husain, .	1588	996	Bahadur, . . .	1595	1004

—*Elph.* p. 673.

NIZAM-UD-DIN AHMAD, BAKHSHI, author of the *Tabakat-i-Akbar Shahi*. His father lived under the emperors Humayun and Akbar, and Nizam-ud-Din under Akbar. His book is also known as the *Tarikh-i-Nizami*. It was completed A.D. 1590. It is one of the most celebrated histories of India, and was abridged by Badauni under the name of *Mantakhab-ut-Tawarikh*. Nizam-ud-Din was eminently upright, and at one time was Bakhshi or commander-in-chief of the army in Gujerat. It contains a short account of the independent kings of Bengal from A.D. 1338 to 1538. He died 28th October 1594.—*Elliot*.

NIZAM-UD-DIN, AULIA, a very celebrated Muhammadan saint of India, styled Sultan-ul-Mushaikh. He died at Dehli, 3d April 1325, and his tomb at Ghayaspur is a place of pilgrimage.

NIZAM-UL-MULK, an officer of the emperor of Dehli, who assumed independence as a ruler in the Dekhan. He was of a Turk family. His name was Chin Kilich Khan, son of Ghazi-ud-Din, an officer of Aurangzeb, under whom both father and son served. Chin Kilich Khan maintained his dignity during the depression of the nobility by the mistress of Jahandür Shah. He was made viceroy of Malwa, but during the rule of the Syuds he revolted, and marched to the Dekhan. Dilawar Khan, a Syud of Bara, was sent in pursuit, but was defeated and slain at Burhanpur; and at Balapur in Berar, Chin Kilich Khan defeated Alan Ali, A.D. 1720. The following year (1721) he was raised to the dignity of wazir of the empire, and took possession of the office at Dehli. He was sent against Hyder Kuli, governor of Gujerat, which he recovered, and returned to Dehli; but, dissatisfied with his position at court, he again, in 1723, marched off to the Dekhan, where he defeated and slew Mubäraz Khan (1726), and fixed his residence at Hyderabad. His title had been Nizam-ul-Mulk, but that of Asaf Jah was now given to him, from which his family, still ruling at Hyderabad, are known as the Asaf Jahi.

In 1737 and 1738 he was employed by the Dehli emperor against the Peshwa, Baji Rao, but was unsuccessful. He was at Dehli in 1739 when Nadir Shah arrived, and was employed to negotiate terms of peace. He was recalled to the Dekhan in 1741 by the rebellion of his son Nazir Jung, and while there he died (1748), at the age of 77. He was the Pagri Baddal Bhai or turband-exchanged brother of the Hara prince. He left five sons,—Ghazi-ud-Din, Nazir Jung, Salabat Jung, Nizam Ali, and Basalat Jung, of whom the second son, Nazir Jung, succeeded. His successors down to 1884 have been—

Nazir Jung, . . .	ob. 1760	Secunder Jah, . . .	ob. 1829
Muzaffar Jung, . .	1761	Nasir-u-Dowla, . .	1867
Salabat Jung, . .	1762	Afzal-u-Dowla, . .	1868
Nizam Ali, . . .	1803	Mahbub Ali Khan, reigning	

The three immediate successors of Asaf Jah

died violent deaths. Nazir Jung was shot by a rebellious noble. Within a year Muzaffar Jung shared his fate. Salabat Jung ruled the Dekhan for ten years, during the greater part of which he had a French army near his capital, nominally as his allies. The overthrow of the French in the Carnatic was accompanied by the withdrawal of all French interest from the Dekhan, and laid Salabat Jung open to the intrigues of his brother Nizam Ali, to which he fell a victim about 1762. Nizam Ali, in the beginning of his reign, came into conflict with the British respecting the Northern Circars. The emperor at that time was Shah Alam II., who had already become little more than a pensioner of the British. Clive obtained from him a grant of the Northern Circars, which then formed part of the territories of the Nizam. In return the Nizam invaded the Carnatic, and in a treaty the British agreed to pay a rent for the possession of the coveted territory; but for many years afterwards the British occupation of the Northern Circars was a sore point with the Nizam. The two great events which brought Nizam Ali and the British into contact and collision were the wars against Mysore and against the Mahrattas.

NIZAM-UT-TUARIKH, a historical work by Baizavi on the Asian monarchies, a general history of the Ghaznvide rulers. Two authors are known as Baizavi, to each of whom this book is attributed. One of them, Nasir-ud-Din, died at Tabreez, A.D. 1286 or 1292, wrote the *Tafsir Baizavi*, a commentary on the Koran; the other, Abu Said Abdulla, lived about the year 1275.

N'MO-N'MA, a salutation in Western India between Brahmans.

NOACOLLY or Noakhali or Sudharn, a town which gives its name to the district in Bengal lying between lat. 20° 22' and 23° 17' 30" N., and between long. 90° 43' and 91° 40' E., with an area of 1852 square miles, and about a million of inhabitants, chiefly the Kaibartta and Kayasth, Hindus and Muhammadans. It is an alluvial tract, broken up into several islands, Sandwip, Hatia, Sibnath, and others, at the mouth of the Megna. The Portuguese occupied the islands in the 16th century, but were addicted to piracy, and the Muhammadan population also continued pirates down to a comparatively recent date. The Portuguese leader in the beginning of the 17th century was Gonzalez, who was defeated in 1616 by the raja of Arakan, and Sandwip taken. In 1664, Shaista Khan, Governor of Bengal, induced the Portuguese to aid him in a war against the Arakan raja. Chittagong was taken in 1666, and the Portuguese settled at Dacca; but the Portuguese were subsequently reduced to a dependent position, and their descendants in dress and customs have sunk to the level of natives, though retaining their Christianity and the old Portuguese names.—*Imp. Gaz.* See Megna.

NOAH. His tomb is shown by the people of Balbec in the plain of Bekaa, or Cælo-Syria, two miles from Zable, on the south side of the village of Kerak. It is a tombstone about ten feet long, three broad, and two high, plastered all over. Over this is a long structure, measuring nearly 60 feet. It is a place of pilgrimage. Four miles from Noah's tomb is the ruined temple of Hermes Nicha, the Mercury of the Greeks and Romans. The Noah of Bible history is known to Muhammadans as Nuh. The Babylonian or Chaldean

Nisuthrus or Sisuthros of Berosus has the history of the Biblical Noah, the Lydian Maues, the Phrygian Noc, and the Greek Deucalion. In the Chaldean account of the deluge, discovered by Mr. George Smith, as in Genesis of the Hebrew Bible, Sisuthros, the Accadian Noah, is saved from destruction on account of his piety, the rest of mankind being drowned as a punishment for their sins. The land of Nizir, in which the vessel of Sisuthros rested, was among the mountains of Pir Mam, to the N.E. of Babylonia. Rowandiz, the highest peak in this part of Asia, rises a little to the north of the Pir Mam.—*Catafago*; *Sayce, Fresh Light*, pp. 32-40.

NOBILI. Robert de Nobili or De Nobilibus, a Portuguese missionary of the Society of Jesus, who founded a mission at Madura A.D. 1624, during the reign of Tirumala Naik. He was supported by the College of Rome de propaganda fide, founded in 1622 by Pope Gregory xv. He was killed by the Hindus, Tatwa Bodnagar.—*As. Res.* xiv. 80, 59.

NOBUT. HIND. A kettle-drum. The use of this amongst the Malays is confined to royalty, and even then they are used only on occasions of state. In the regulations for the government of Malacca, in the 11th Annal, it is laid down that when it is necessary for the Laksmana to be in attendance, the nobuts ought to be present; the term, to confer nobuts, means to give one the government of a country with the rights of royalty. The nobut-khanah or saloon for the martial or royal band is usually placed over an arched gateway. Amongst the Muhammadan rulers of British India the right to the nobut is granted to their nobles.—*Jour. Ind. Arch.*, 1851.

NOCTUA. A species of this insect attacks the maturing coffee-plant in February and March in Lower Bengal.

NODDY, a sea-bird, *Sterna stolidus*. The sooty tern is *St. tenuirostris*, *Tenn.* The small grey noddy is the *Anous cinereus* of Norfolk and Nepean Islands.

NOGAI, a Tartar race settled in the city of Bokhara, who migrated from Russian territory.

NOLE-COLE or Knol Khol, a vegetable sown exactly as cabbage, broccoli, etc. It comes in early, and remains in season until April. If watered during the hot weather and taken care of, it will, when the rains commence, throw out sprouts on the old stalk, which may either be used or slipped off and planted. They will not be so fine as those raised from seed, yet are fit for use.—*Jaffrey*.

NOMADE. The pastoral tribes of Central and Southern Asia migrate from place to place at seasons of the year, to obtain forage for their flocks. The Persian word *numud* or *felt*, of which the tents of the wandering tribes of Central Asia are composed, has supplied the root to the word *nomadino*. In British India there are many small migratory tribes living in tents of mats or cloth, encamping in the outskirts of towns, all of them poor and mostly predatory; and there are fowler, hunter, and forest races who move from place to place within a recognised area; and the movements of the more settled, Dhangar and Ahir or cowherd races of the Peninsula of India, are restricted to the forest and open tracts. But the nomades of S. Asia move for some hundred miles to their Garm-sair and Sard-sair lands.

The summer station is also called Eilauk, and the winter station Kishlauk, words which the Afghans and Persians have borrowed from the Tartars. Residents of British India who have witnessed a large Banjara camp migrating, will have seen a true picture of the nomade life of Central Asia. The principal feature in which the Western Afghans differ from the Eastern, is formed by the numerous pastoral tribes. The tent used among the Afghans and Persians is of coarse black camel-tent. It is called Kizhdi in the Afghan language, Siah-chadar in Persian, and Karra-ooee in Turkish, meaning black tent. The tents of the tribes that move little are larger and better than those of the very migratory. The latter have often fine tents, which they leave at the stations where the climate is most severe, carrying lighter ones on their journeys to the places where shelter is less required. Much land is wasted in this mode of life. A nomadic family of Upper Asia requires for its support 300 head of cattle, for which not less is necessary than one-sixth of a geographical square mile of pasture. A tribe of 10,000 requires 200 or 300 square miles of pasture land.

The nomade Turkoman tribes are the representatives of a family which has existed from times anterior to history, and are occupying at the present day the immense steppes of Tartary. The Turkoman, out of whom the Turks of the towns and cities of Southern and Western Asia sprung, were apparently those of the Persian frontier, the ancestors of the present Yamud, Gokan, Tekke, and Ersan tribes, who lie along the frontier of Persia, from the Caspian to the south-western feeders of the Oxus. Except on the valley of the Attrak, where they have developed an imperfect agriculture more akin to gardening than to farming, they are nomades, with no towns, with more tents than houses, and with pre-eminently predatory habits, as the Persians of Khorasan and Asterabad know to their cost. Unrivalled riders, with a breed of horses that will endure any hardship, they have been infamous for their forays; and as they have a great robbing-ground to the south, where the occupants are other than Turk, they are more incorrigible plunderers than even the central Kirghiz and Uzbek. When settled in more favourable localities, they are slow to lay aside their original habits. So far as they are mixed in blood, it is the Persian element that has mixed. Such are the Turkomans. A true picture of Iliyat nomade life is expressed in Isaiah xl. 11: 'He shall feed his flock like a shepherd: he shall gather the lambs with his arm, and carry them in his bosom, and shall gently lead those that are with young.' As the Iliyat move along, the women are seen with their spinning-wheels on their shoulders, some twisting woollen yarn, others bent forward, and advancing slowly with their children astride on their backs, clasping their little arms around their mother's neck, and twisting their little legs round her waist. The smaller ones are usually tied up in a bag behind the back, while infant babies, together with their clumsy cradles, are hoisted on the heads or shoulders of their fond mothers, sinking under the weight. The word Iliyat or Ilat is derived from Eel, a tribe. It is also expressed by Zem or Zim, which Ibn Haukal explains by the equivalent Arabic, Kabilah. The whole of the Turk

racés, the Iliyats of Persia, and the great bulk of the Afghan races, and of the independent nations between Afghanistan and British India, are migratory at seasons. An Iliyat tribe whom Baron de Bode met belonged to a Lur stem, which had been transplanted into Fars by Aga Muhammad Khan, the uncle of Fath Ali Shah, from Luristan Kuchuk. After his death, many of them returned to their primitive encampments in the Zagros chain. When Nadir Shah overran Herat and Kandahar, he is said to have deported 18,000 Ghilzai with their families to Teheran, and to have distributed the lands of Kandahar amongst his Persian followers. Many nomades met with by Vigne were of a sickly complexion, attributed to the pernicious alkaline quality of the water. The diseases to which they were most subject were fevers, cutaneous and nervous disorders, and especially blindness. It is the peculiar character of the seasons that compels these distant migrations of Asiatic tribes in the lands they occupy, as in the Eastern Archipelago tribes of seafarers, the Ryot Laut or people of the sea, shift from the weather to the leeward sides of the islands with the changes of the monsoons.—*Lieut.-Col. MacGregor*, p. 61; *De Bode's Travels*, pp. 118, 255; *Osseley's Tr.* i. p. 307; *Vigne*, p. 83.

NOMEN HAN. *Tib.* A prince of the religious law, an equivalent of the Sanskrit Dharma raja.

NON-ARYAN, a term in use in India to designate the races whom the Aryans found in the country. Some of the Dravidian non-Aryans, as the Tamil, Teling, Canarese, and Gond, are in great nationalities and civilised; but the hills and forests of Central India are occupied by tribes, many of whom differ widely from those of the plains. They are small, black, and slender, but active, with peculiar features and a quick and restless eye. They wear few clothes, in the case of the wilder Bhils are armed with bows and arrows, and, unless the government is strong, are always at war with their neighbours. They live in scattered and sometimes moveable hamlets, are divided into small communities, and allow great power to their chiefs. They subsist on the produce of their own imperfect cultivation, and on what they obtain by exchanges. Besides one or two of the Hindu gods, they have many of their own, who dispense particular blessings or calamities. The one who presides over the small-pox is, in most places, looked on with particular awe. The early history of all these tribes is uncertain. In the Dekhan they were in their present state at the time of the Hindu invasion. The great tract of forest called Gondwana, lying between the rich countries of Berar and Cuttack, and occasionally broken in upon by patches of cultivation, gives a clear idea of the original state of the Dekhan and the progress of its improvement.

They sacrifice fowls, pour libations before eating, are guided by inspired magicians, and not by priests, and bury their dead. They are all much addicted to spirituous liquors, and most of them kill and eat oxen. Their great abode is the Vindhya mountains, which run east and west from the Ganges to Gujerat, and also the broad tract of forest which extends north and south, from the neighbourhood of Allahabad to the latitude of Masulipatam, and with interruptions almost to Cape Comorin. In some places the forest has been encroached on by cultivation, and their

inhabitants have remained in the plains as village watchmen, hunters, and other trades suited to their habits. In a few places their devastations have restored the clear country to the forest, and the remains of villages are seen among the haunts of wild beasts. There are other tribes of mountaineers in the north-eastern hills and the lower branches of the Himalaya, who partake more of the features and appearance of the nations between them and China. No separate mention is made of the mountain tribes by the Greeks, but Pliny more than once speaks of such communities.

NORFOLK ISLAND PINE, *Araucaria excelsa*. Norfolk Island grass tree, *Freycinetia haureriana*.

NORIMON, an oblong box, used in Japan as the palanquins in India, carried by means of poles passed through iron loops on either side. There are many kinds of norimon, with decisive marks which distinguish the norimon of the great from the kako of the humble. The norimon in Japan, if for a big man, is covered with curtains. A common hack norimon is left in its naked ugliness and discomfort. The occupant must sit cross-legged, and even then can hardly raise his head.—*Hodgson's Nagasaki*; *Frere's Antipodes*.

NORMAN, **LIEUTENANT-GENERAL SIR HENRY**, K.C.B., C.I.E., an officer of the Bengal army. While still an ensign, he was Brigadier-Major to the expeditionary forces in the Peshawur valley, and as a lieutenant was Adjutant-General to the troops in the field under Lord Clyde. While Acting Adjutant-General of the Bengal army, before Delhi, both pen and sword were ever in his hand; and to those who knew him then, and fought beside him, his name will be inseparably connected with Metcalfe's ruined home, and that intrenched position on the heights commanding Delhi where Hindu Rao once lived. Sir John (Lord) Lawrence writing of him said, 'There is a young officer now at headquarters, who, though young in years, has seen much service, and proved himself an excellent soldier. I allude to Captain Norman, of the Adjutant-General's office. Sir Colin Campbell (Lord Clyde) had the highest opinion of his judgment, and when he left Peshawur, it was considered a public loss.' After the mutiny of 1857-58, the Indian Government reorganized its native army. His plan of establishing a Staff Corps was partially followed, and the immediate pressure was removed, but the real difficulties of the situation were increased tenfold, and after many years of, for an army, demoralization and anxiety, only in 1867 was some conclusion come to. In 1883 he was appointed to be Governor of Jamaica.—*Thurlow*, p. 26; *Smith's Lord Lawrence*, ii. p. 31.

NORTHBROOK, **LORD**, G.C.S.I., was Viceroy and Governor-General of India from the 3d May 1872 to the 12th April 1876. He resigned office on the ground that the British ministry resolved on waging war with the Amir of Afghanistan.

NORTHCOTE, **SIR STAFFORD H.**, an enlightened statesman of Great Britain, for many years Secretary of State for India. He gave every support to the progress of railways, canals, channels of irrigation, and sanitation.

NORTHERN CIRCARS, a designation of four districts of the Madras Presidency, on the eastern side of the Peninsula of India. These comprise a narrow tract of land extending between lat.

16° and 20° N., and from the sea-coast to the Eastern Ghats, by which it is separated from the great table-land. It is a tolerably level region, with occasional spurs from the ghats approaching the sea-coast; has little or no natural wood, except towards the ghats. On the dissolution of the Moghul empire, the Northern Circars passed into the possession of the Nizam of Hyderabad. During the disputed succession which ensued on the death of the first Nizam, the French rendered such essential services in placing Salabat Jung on the throne, that he presented to them the four Circars of Mustafanagar, Ellore, Rajamundry, and Chicacole. M. Bussy himself assumed the government; and during one of his campaigns, besieged and took Bobbili, an event which has been commemorated in ballads that are sung to this day. The Gajapati Vijaiaram Raju of Vizianagram, at feud with Raja Rao, raja of Bobbili, induced M. Bussy to attack Bobbili. When Raja Rao and his followers perceived that resistance was vain, they put to death all the women and children in the fort, and then died fighting sword in hand, refusing every offer of quarter. An infant son of Raja Rao was alone rescued from this scene of slaughter. Four of his retainers, seeing their chief fall, vowed to avenge his death. Having secreted themselves in the jungle for some time, they penetrated to Vijaiaram Raju's tent by night, and assassinated him.—*Imp. Gaz.*

NORTH-WESTER, a term applied to sudden tempestuous squalls in the lower part of Bengal and in the Straits of Malacca. In the latter locality they occur shortly after the N.E. monsoon sets in, and whirlwinds and waterspouts are not rare, but they occur in Lower Bengal, in March and April, accompanying most refreshing falls of rain. The season of the north-westers is, above all others, that which requires the most attention and care by voyagers on the Ganges. The north-westerly squalls in the Straits of Malacca do not prevail so much as the Sumatras. They are most common in the northern part of the strait between Acheen Head and the Arroa Islands; they sometimes blow through it to the Carimons or even through Singapore Strait to Pedro Branco.—*Horsb.; Newbold*, i. p. 3; *Ren-nell's Memoir*, p. 361.

NORTH-WEST PROVINCES, an administrative province of British India, lying between lat. 23° 51' 30" and 31° 5' N., and long. 77° 3' and 84° 48' 30" E. Area, 111,236 square miles. Between the census of 1872 and 1882, Oudh and the N.W. Provinces were placed under one Lieutenant-Governor; and the 1881 figures show 11,407,625 souls for Oudh, and 32,699,436 for the N.W. Provinces, giving a total of 44,849,611 souls. These provinces are bounded on the north by the Chinese empire, on the north-east by Nepal, on the east by Bengal, on the south by Chutia Nagpur, Rewa, the Bundelkhand States, and the Central Provinces, and on the west by Sindia's dominions, Rajputana, and the Panjab. Its revenue divisions are—Agra, Allahabad, Benares, Jhansi, Kanton, Meerut, Rohilkhand. The Native States are—Garhwal or Tehri, with 4180 square miles, and 150,000 people; and Rampur, 945 square miles, and 507,013 inhabitants. The family domains of the maharaja of Benares are of 986 square miles, and 392,415 inhabitants. Its physical character is seen in the N.W. Himalayas,

in Garhwal, the Siwalik on the south of the Him-alayas, the Doab of the Ganges and Jumna, the poor tract of Bundelkhand, and the triangular plain of Rohilkhand.

Its rivers are the Ganges, the Jumna, and the Gogra, two Kali Naddi, Hindan, Chambal, Betwa, Ken, Ramganga, Gumti, and Rapti. The ancient historical cities were Hastinapur and Ayodhya. In 1881, the prominent castes in the population were:—

Christians,	47,673	Lohar,	497,242
Muhammadans,	6,232,900	Gujar,	269,838
Sikhs,	3,644	Mali,	257,234
Buddhists,	103	Mallah,	613,016
Chamars,	5,413,067	Babhan,	250,952
Brahmans,	4,711,890	Gadaria,	860,990
Rajputs,	3,157,190	Kori,	843,422
Ahir,	8,584,572	Dom,	205,424
Kurmi,	2,110,345	Kalwar,	345,751
Banya,	1,213,471	Bhang,	435,633
Jat,	674,547	Lonia,	378,619
Teli,	687,672	Bhurji,	304,844
Kachhi,	1,969,514	Ahar,	272,863
Kayasth,	519,982	Rhuinhar,	188,151
Pasi,	1,034,602	Khatark,	152,030
Kahar,	1,225,420	Bhat,	130,402
Kumhar,	639,380	Gosain,	120,641
Nai,	644,142		

Its modern cities are—Agra, Aligarh, Allahabad, Bareilly, Benares, Cawnpur, Farrakhabad, Gorakhpur, Hardwar, Mirzapur, Moradabad, Muttra, with the hill sanatoria of Landaur, Mussoori, and Naini Tal.

Places of interest in the provinces are the sacred Hindu town of Hardwar; the ruined sites of Kanauj and Hastinapur; the deserted Moghul capital of Futtchpur Sikri; and the ancient temples and fortresses of Mahoba and Kolinjar; and for irrigation the British have formed the Ganges, the Eastern Ganges, the Jumna, the Dun, and the Agra canals; also the Bijour canals and the Bundelkhand lakes.

The region of the N.W. Provinces and Oudh is that in which all invaders from the N.W. have formed governments. That portion of the Panjab which surrounds the upper waters of the Saraswati river is still regarded by the Aryan Hindus as one of the most sacred spots of Hindu pilgrimage; and their earliest traditions of the N.W. Provinces cluster round the city of Hastinapur, the ancient metropolis of the Pandava. But the earliest empire in this portion of Upper India of which any certain monuments remain, was that of the Buddhist dynasty of Magadha. It was at Kapila, B.C. 598, that Sakya, the founder of the Buddhist creed, was born, and he died at Kassia, in the Gorakhpur district, in 543. When Alexander the Great invaded the Panjab in B.C. 327, he heard of the great Naga empire of Magadha, whose capital lay at Palibothra, the modern Patna. The reigning prince at the date of Alexander's invasion bore the name of Nanda. His minister Chandragupta, the Sandracottus of the Greeks, assassinated the Naga prince, and seized upon the throne for himself. Seleucus, the successor of Alexander in his easternmost dominions, marched with a large army into the Ganges basin, and endeavoured to annex the provinces to his own kingdom, but Chandragupta succeeded in so far as to preserve his territory intact, and received the Greek philosopher Megasthenes as ambassador from Seleucus at his court in Palibothra. Under his grandson Asoka, B.C. 260,

the whole of Hindustan and the Panjab, together with portions of the Dekhan and the north-western mountain country, formed parts of the Magadha empire. The pillar and rock edicts containing the inscriptions of Asoka, are still to be seen at Peshawur, at Allahabad, at Dehli, in the Dehra Doon, also on the shores of the Bay of Bengal and in Gujerat; and he established Buddhism as the State religion throughout his wide dominions.

Little is known of the history of this region for the next 1500 years, during which it was overrun by Tartar, Rajput, and Jat clans, whose last effort against the advancing Muhammadans failed under the leadership of Prithi-raj. Muhammad Ghori, who overthrew the Ghaznvide dynasty, was the founder of the Musalman power in Hindustan. Subsequently, in 1398, Timur, crossing the Indus at Attock, marched through the Panjab to Dehli, under the walls of which he defeated Muhammad Taghalag, and then entered the imperial capital in state.

NORTON, JOHN BRUCE, born 1815, a barrister practising in Madras from 1842 to 1871, and who held the office of Advocate-General, and was a member of the Legislative Council. He wrote on all the events of the period. His chief literary works were entitled the Administration of Justice in British India, and the Law of Evidence. He died in London in 1883.

NOSE-RUBBING is a salutation in China, New Zealand, and amongst the Lapland Alps. As a parting salutation, it is practised among the Macassars, the Papuans of New Caledonia, the Australians, the New Zealanders, and the Marquesas islanders.—*Max Muller's Chips*.

NOSHERA, a town on the left bank of the Kabul river, the scene of a great battle between the Sikhs under Ranjit Singh and the Afghans under Azim Khan, who, however, himself held back from the battle, and ultimately fled, and the Afghans were defeated with great slaughter.

NOSH-i-JAN. PERS. A Persian congratulatory salutation, meaning, May it be a drink of life to you.

NOSTOE (edule? collenum?), a shower of this fell in Boondika, a little beyond the Begari canal, in the Shikarpur collectorate. It is used in China as food.

NOTATION. The decimal system of notation has been shown by Woepcke to have entered Europe from India through the Arabs. Mr. Burnell supposes the cypher represents the large cowrie used by Indian astronomers in the decimal places in the very ancient method of calculation by cowries.

NOTELEA LONGIFOLIA, one of the iron-woods of Norfolk Island; is used in all wheelwright's work, and is very hard and durable. It is also used for cabinet work, and when French polished it is not excelled by any of the fancy woods.—*Keppel's Ind. Arch.* ii. p. 283.

NOTONIA GRANDIFLORA, D.C., the *Cacalia grandifolia*, Wall., one of the *Matricariaceae*, is a shrub of Travancore and the Neilgherries. Its flower-heads are largish. It was supposed by Dr. Alexander Gibson to be specific in hydrophobia. *N. crassissima* is a shrub of Burma. *N. corymbosa*, D.C., was also recommended by Dr. Gibson in hydrophobia.

NOTOPTERUS KAPIRAT, an edible fish of

the rivers of the S.E. of Asia. It is ugly in appearance, but good eating.

NOTT, SIR WILLIAM, a general of the Bengal army who conducted an army against Kabul.

NOURATRI, a Hindu festival occupying the period from the first to the ninth of the moon-light half of Asoj, consecrated to the family goddess, or to Durga, the consort of Siva. Colonel Tod gives an interesting account of the Mewar manner of celebrating this annual festival. On the 1st of Asoj, the rana of Mewar, after fasting, ablution, and prayer on the part of the prince and his household, has the double-edged khanda removed from the hall of arms (awad-sala), and having received the homage (puja) of the court, it is carried in procession to the Kishenpol (gate of Kishen), where it is delivered to the Raj-Jogi, the mahants, and band of Jogi assembled in front of the temple of Devi, the goddess, adjoining the portal of Kishen. By these, the monastic militant adorers of Heri, the god of battle, the brand, emblematic of the divinity, is placed on the altar before the image of his divine consort. At three in the afternoon, the nakarra, or grand kettle-drums, proclaim from the tripolia the signal for the assemblage of the chiefs with their retainers; and the rana and his cavalcade proceed direct to the stables, when a buffalo is sacrificed in honour of the war-horse. Thence the procession moves to the temple of Devi, where the Raja Krishen (Gedi) has preceded. Upon this, the rana seats himself close to the Raj-Jogi, presents two pieces of silver and a coconut, performs homage to the sword (kharga), and returns. On the 2d of Asoj, in similar state, he proceeds to the Chougan, their Champ de Mars, where a buffalo is sacrificed; and on the same day another buffalo victim is felled by the nervous arm of a Rajput, near the Torunpol, or triumphal gate. In the evening, the rana goes to the temple of Amba Mata, the universal mother, when several goats and buffaloes bleed to the goddess. On the 3d, five buffaloes and two rams are sacrificed to Harsid Mata.

On the 4th, as on every one of the nine days, the first visit is to the Champ de Mars: the day opens with the sacrifice of a buffalo. The rana proceeds to the temple of Devi, where he worships the sword and the standard of the Raj-Jogi, to whom, as the high priest of Siva, the god of war, he pays homage and makes offering of sugar and a garland of roses. A buffalo having been previously fixed to a stake near the temple, the rana sacrifices him with his own hand, by piercing him from his travelling throne (raised on men's shoulders, and surrounded by his vassals) with an arrow. On the 5th, after the usual sacrifice at the Chougan, and an elephant fight, the procession marches to the temple of Asapurna (Hope); a buffalo and a ram are offered to this goddess, adored by all the Rajputs and the tutelary divinity of the Chauhan tribe. On this day, the lives of some victims are spared, at the intercession of the Nuggur-Set'h, or chief magistrate, and those of his faith, the Jains. On the 6th, the rana visits the Chougan, but makes no sacrifice. In the afternoon, prayers and victims to Devi, and in the evening the rana visits Bikhari Nat'h, the chief of the Kanphata Jogi, or split-ear ascetics. The 7th, after the daily routine at the Chougan, and sacrifices to Devi (the goddess of destruction), the chief equery is commanded to adorn the

steeds with their new caparisons, and lead them to be bathed in the lake. At night, the sacred fire (hom) is kindled, and a buffalo and a ram are sacrificed to Devi; the Jogi are called up, and feasted on boiled rice and sweetmeats. On the conclusion of this day, the rana and his chieftains visited the hermitage of Sukria Baba, an anchorite of the Jogi sect. 8th, there is the homa, or fire-sacrifice in the palace. 9th, at three in the afternoon, the nakarras having thrice sounded, the whole state insignia, under a select band, proceed to mount Matachil, and bring home the sword. When its arrival in the court of the palace is announced, the rana advances and receives it with due homage from the hands of the Raj-Jogi, who is presented with a kelat; while the mahant who has performed all the austerities during the nine days, has his patera filled with gold and silver coin. The whole of the Jogi are regaled, and presents are made to their chiefs. The elephants and horses again receive homage, and the sword, the shield, and spear are worshipped within the palace. The 10th, or Dussera, is a festival respected in India by all classes, although entirely military. Being commemorative of the day on which the deified Rama commenced his expedition to Lanka for the recovery of Sita, the tenth of Asoj is consequently deemed by the Rajput a fortunate day for warlike enterprise. The day commences with a visit from the prince or chieftain to his spiritual guide. Tents and carpets are prepared at the Chougan or Matachil mount, where the artillery is sent; and in the afternoon, the rana, his chiefs and their retainers, repair to the field of Mars, worship the kajiri tree, liberate the niltach or jay, as sacred to Rama, and return amidst a discharge of guns. On the 11th, in the morning, the rana, with all the state insignia, the kettle-drums sounding in the rear, proceeds towards the Matachil mount, and takes the muster of his troops, amidst discharges of cannon, tilting, and display of horsemanship. And while every chief or vassal is at liberty to leave his ranks, and 'with the world with noble horsemanship,' there is nothing tumultuous in their mirth. The steeds purchased since the last festival are named, and as the cavalcade returns, their grooms repeat the appellation of each as the word is passed by the master of the horse, as Baj Raj, the royal steed; Hymor, the chief of horses; Manika, the gem; Bajra, the thunderbolt, etc. On returning to the palace, gifts are presented by the rana to his chiefs. The Chauhan chief of Kotario claims the apparel which his prince wears on this day, in token of the fidelity of his ancestor to the minor Oody Singh in Akbar's wars. To others, a fillet or balaband for the turband is presented; but all such compliments are regulated by precedent or immediate merit. Thus terminates the nouratri festival, sacred to the god of war, which in every point of view is analogous to the autumnal festival of the Scythic warlike nations, when these princes took the muster of their armies, and performed the same rites to the great celestial luminary. If we look westward from the central land of earliest civilisation to Dacia, Thracia, Pannonia, the seats of the Thyssagetæ or the Western Getes, we find the same form of adoration addressed to the emblem of Mars, as mentioned by Xenophon in his memorable Retreat, and prac-

tised by Alaric and his Goths, centuries afterwards, in the Acropolis of Athens. If we transport ourselves to the shores of Scandinavia, amongst the Cimbri and Getes of Jutland, to the Ultima Thule, wherever the name of Gete prevails, we shall find the same adoration was paid by the Getic warrior to his sword.—*Tod's Rajasthan*, i. p. 582; *Forbes' Rasamala*; *Hindu Annals*.

NOUROZ, New Year's day. This celebrated festival of the ancient and modern Persians originated in the time of Jamahid. It falls generally on the 21st of March, is coeval with the vernal equinox, and with the Makar Sakarant of the Hindus. This day is observed by the modern Persian, Arab, Turk, Parsee, and several other Asiatic nations, for the computation of the solar year, and for state purposes, such as the collection of the revenue and the arrangement of the agricultural operations of the year. In Persia, the festival is kept up for several days with unusual pomp by all the inhabitants, but in India, among the Parsees, it is simply a day of rejoicing. On the Nouroza festival the Great Moghul used to slay a camel with his own hand, which was distributed and eaten by the court favourites. Akbar named it Khoosh roz.—*Tod, Rajasthan*, i. p. 72.

NOUSHERWAN, surnamed Adil or the Just, is the Chosroes of the Greeks. He was the son of Kubad, king of Persia, at whose death, A.D. 531, he ascended the throne of that kingdom. The accounts given by eastern and western authors of the successes of this king in his invasions of the Roman empire, differ but very little. Some eastern historians have asserted that he took an emperor of the Romans prisoner; and they have all passed over the few reverses which his arms sustained. But the disgraceful peace which the emperor Justinian purchased at the commencement of the reign of Nousherwan, the subsequent war, the reduction of all Syria, the capture of Antioch, the unopposed progress of the Persian monarch to the shores of the Mediterranean, his conquest of Iberia, Calchos, and the temporary establishment of his power on the banks of the Phasis, and on the shores of the Euxine, are facts not questioned by his opponents. They, however, assert that his success as a military leader, even when his fortune was at the highest, was checked by Belisarius, who was twice sent to oppose his progress, and whose success, considering his want of means, and the character of the court he served, was certainly wonderful. In all the negotiations which took place between the emperor Justinian and Nousherwan, the latter assumed the tone of a superior. His lowest servants were treated, at the imperial court, in a manner calculated to inflame the pride of an arrogant nation, and the agreement of the Roman emperor to pay 30,000 pieces of gold showed the monarch of the western world in the rank of one of Nousherwan's tributaries. In a second war with the Roman emperors Justin and Tiberius, Nousherwan, who, though 80 years of age, still led his armies, experienced some reverses of fortune; but the perseverance of the aged sovereign were ultimately rewarded by the conquest of Dara and the plunder of Syria, A.D. 572. He died, after a prosperous reign of 48 years, about the year 579 A.D., and was succeeded by his son, Hurmuz IV.

Mahomed, who was born during the reign of

Nousherwan, A.D. 571, used to boast of his fortune in being born when so just a king reigned. This is great praise, and from a source that cannot be suspected of flattery. Various Persian authors, quoted by Sir John Malcolm, assert that this monarch carried his arms into Ferghana on the north, and Sind and India on the east; and as they are supported in the first assertion by Chinese records, there seems no reason to distrust them in the second. Sir Henry Pottinger (though without stating his authority) gives a minute and probable account of Nousherwan's march along the sea-coast of Mekran to Sind, and, as Vallabi was close to Sind, we may easily believe him to have destroyed that city.

The Vallabhi prince Goha was married to the daughter of Nousherwan. She was granddaughter of Maurice, emperor of Constantinople, and from her are descended the present maharanas of Udaipur, capital of Mewar, who thus represent Rama of the Solar race, the Sassanian kings of Persia, and the Cæsars of Rome. The maharanas of Udaipur are always represented in their portraits with an aureole round their heads. Perhaps the current story of the descent claimed for the maharanas of Mewar from Nousherwan may have some connection with their being driven into their present seats by that monarch. Nousherwan was surnamed 'the Just,' and was distinguished for equity, wisdom, and munificence. He erected many colleges, caravansaries, and other buildings of public benefit, and gave great encouragement to learning and philosophy. In his time the fables of Bidpai were translated into Pehlavi. — *Pottinger's Beluchistan*, p. 386; *Elphinstone's Hist. of India*, i. p. 401; *Beale's Biographical Dictionary*.

NOUSHERWANI. MALAY. A tribe in Baluchistan.

NOWBUT. HIND. An instrument of music sounded at the gate of a great man at certain intervals. See Nobut.

NOWGONG or Naogaon, a British cantonment in Bundelkhand, in Central India, situated between the British district of Hamirpur and the native state of Ch'hatarpur. The Rajkumar College, opened at Nowgong in 1875-76, was established by the native chiefs of Bundelkhand in memory of Lord Mayo.

NOWGONG, a revenue district of Assam, lying between lat. 25° 45' and 26° 40' N., and long. 92° and 93° 50' E., with an area of 3415 square miles. It presents the appearance of a wide plain, intersected by numerous rivers and streams, and dotted with shallow marshes, and with the Kamakhya Hills, 1500 feet high, near the Brahmaputra. On the hills is a temple to Durga, which is associated with the founder of the Koch-Bahar dynasty. The most numerous tribe is the Koch, descendants of a people once dominant throughout the country, and identical with the Rajbansis of Bengal. In Assam, the appellation of Koch is held in comparative honour. The Doms in Assam lay claim to exclusive purity of caste, but accept Kolitas as their spiritual guides in preference to Brahmins. The Mikir, Lalang, and Cachari are other tribes. — *Imp. Gaz.*

NOWSARI, in Gujerat, the city of the Parsees priests, whence numbers are sent every year to Bombay to minister to the Parsee population of that city. — *Parsees*.

NRI. SANSK. A man. Nri-medha, a human sacrifice; Nri-singha, the man-lion avatar.

NUBIA, between lat. 11° and 24° N., and long. 28° and 29° E., a country of East Africa, enclosed between Egypt, the Nile, Abyssinia, and the Red Sea; area with Kordofan, 300,000 square miles. The Nile runs through it, on the banks of which it is fruitful, but in other places barren, sandy, and destitute of water. It derives its name from Noub, gold. The immediate banks of the Nile are rendered fertile by laborious irrigation by wheels, but all the rest of Nubia consists of sandy and rocky deserts, as the Nile here seldom overflows its banks. The population is estimated at 400,000, and up to 1821, when it was conquered by Ibrahim Pasha, it was under a number of chiefs. It is covered with many magnificent remains of antiquity. — *Cata-fago*.

NUBRA, the north-western district of Ladakh, on the Shayuk river, in the North-west Himalaya, is in lat. 35° to 36° N., and long. 77° to 78° E. The Sassar pass is 17,753 feet above the sea. The Nubra, Pangong, and Rodok districts, in the basin of the Shayuk river and its affluents, lie on the S. flank of the Kouen Lun, from Balti to Nari, and have Ladakh as their southern boundary. With the exception of Nari, this is the most lofty and sterile part of Tibet, the axis of the Kouen Lun being probably upwards of 18,500 feet, the valleys 16,000 or 17,000 feet, and numerous peaks rise 20,000 or 23,000 feet. The Karakorum pass is 18,300 feet, the salt Pangong lakes 18,400 feet. The villages of Lower Nubra are not numerous, but some of them possess very extensive cultivation. From Kashmir eastwards, all the easily accessible portions of the Himalaya are occupied by Aryan Hindus as far as the eastern border of Kamaon and the Kali river separating Kamaon from Nepal, the Tibetans being here confined to the valleys about and beyond the snow. People of Tibetan blood have migrated into Nepal, throughout its whole length, and have formed mixed tribes, whose appearance and language is more Tibetan than Indian, but whose religion and manners are Hindu. East of Nepal, in Sikkim and Bhutan, the Hindu element almost disappears, and the Tibetans are altogether dominant. Eastward of Kashmir are the Bhot race in Balti and Ladakh. Balti includes Hasora, Rongdo, Rong-yul, Shagar, Skardo, Balti, Parkuta, Tolti, Kartaksho, Kiris, Khaybalu, and Chorbati. Ladakh or the Botpa includes Spiti, Zangskar, Purik, Suru, Hembako (Dras), Ladakh proper or Leh, Nubra, Rong, Rupahu, and Hanle. The language of the Bhotias of Tibet, the Bhotia or Tibetan, is also that of Bhutan, and is a connecting link between the polysyllabic and monosyllabic languages. Garhwal is to a large extent Bhot. — *Thomson's Tr.* p. 199; *Hooker and Thomson*, p. 22.

NUKA. HIND. Land on the ridges or banks left by the dry course of a running river.

NUI, Nulkhagra. BENG. Amphidomax karka, the grass of which the Durma mats are made, formed of the stalks split open.

NULLIPORIDÆ of the Corallinaceæ belong to one of the lowest classes of the vegetable kingdom. One species is of a beautiful bright peach-blossom colour; its branches as thick as crow quills, slightly flattened and knobbed at the

extremities. The extremities only are alive and brightly coloured. Other two species are of a dirty purplish-white, and one of them is extremely hard and cylindrical.—*Darwin*.

NULU-CHAMPOO. SANSK. From Nulu, the name of a king, and Champoo, a particular kind of composition, in which the same subject is maintained in all the varieties of prose and verse.

NUMBER. This English word has been added to all the languages of British India. The number seven is used frequently in Scripture, not to signify a definite, but a large and sufficient quantity; hence Daubuz states its Hebrew etymology to signify fulness and perfection, and Philo and Cyprian call it the completing number. 'The barren hath borne seven,' said Hannah in her song, meaning a great number. The victims under the Jewish law bled by sevens; the golden candlestick had seven branches, bearing seven golden lamps; the mercy-seat was sprinkled seven times with the blood of the atonement; and to sacrifice by sevens was a characteristic of great solemnity in patriarchal times. The key to this rite, says Horsley, is the institution of the Sabbath, the observance of the seventh day being the sacrament of the ancient church. The numbering by seven was doubtless taken from the phases of the moon. With the Indian Muhammadana, sāt-āt, 7, 8 represent a small number. The number ten also is often used in Scripture to denote frequency and abundance, and is evidently taken from the ten fingers on the hands. 'Thou hast changed my wages ten times,' Genesis xxxi. 7, 41; 'Those men have tempted me now these ten times,' Numbers xiv. 22; 'These ten times have ye reproached me,' Job xix. 3; 'He found them ten times better than all the magicians,' Daniel i. 20. The ten days are again interpreted as indicating the shortness of the persecution, in the same sense as they are employed by Terence: 'Decem dierum vix mihi est familia,' I have enjoyed my family but a short time. There is in India a very remarkable use of seventy-four, in epistolary correspondence. It is an almost universal practice in India to write this number on the outside of letters, it being intended to convey the meaning that nobody is to read the letter but the person to whom it is addressed. The practice was originally Hindu, but has been adopted by the Muhammadana.

The Roman system of using letters to indicate figures is followed by all Muhammadans. The death of Karim Khan, Zend, is commemorated in the sentence—

Al va'e Karim Khan mūd.
Woe and alas! Karim Khan is dead.

The numeral values of the letters composing these few words, being added up, give 1193, the year of the Hijira, corresponding with A.D. 1779, in which this good king died.

Nadir Shah was assassinated in his tent at Meshed in Khorasan, on the 8th June 1747, and his fate was thus recorded—

'Nadir b' dūzakh raft.'
'Nadir to hell has gone.'

These letters give A.H. 1161, which corresponds with A.D. 1747.

A famous glee-maiden of Hyderabad, at the closing years of the 18th century, built a mosque

near Maul Ali Hill, and, seeking a date for it, a learned man proposed the satirical couplet—

'Pesh-i-in mihrāb sajud-i-khas-o-am ast,
Falk guft in bait-ul-Harām ast.'

—*Tol's Rajasthan; Elliot's Supp.; Milner's Seven Churches*, pp. 23, 205.

NUMIDA PTILORHYNA. The guinea-fowl is believed to be descended from the Numida ptilorhyna of the hot arid parts of East Africa, but it has become wild in Jamaica and St. Domingo, and is small with black legs. The guinea-fowl is the Bohemian of the barn-yard. They are hardy and prolific, and are valuable in gardens, as they rarely scratch the ground, are eager in their search for insects, and, with a scraping motion of their bill, gather the seeds of grasses. Their value in India in checking the increase of snakes cannot be too highly praised.—*Darwin*.

NUMMULITE, the Shudnaj udsee of the Arabs, official with the natives of India. They are lentil-shaped greyish pebbles of various sizes, consisting of carbonate of lime and iron, with a nucleus of calcareous crystals. The hakims administer them in eye diseases and ulcers. The rocks around Cairo are a soft fine-grained nummulite, abounding in many sorts of marine, with some land, remains. The most abundant is the multilocular shell which gives them their name, and believed by the Egyptians to be the money of the Jews cursed and turned into stone. A similar tradition to this, in reference to nummulites, prevails in Cutch. A holy man who had been refused charity by a miser, cursed his money, and it became stone at once, so that it is now found in the rocks. A transverse section of this little shell very closely resembles a coin.—*Royle; Honigberger*.

NUMRI or **Lumri**, a people of Luz, a dependency of Kalat, with about 1600 fighting men. They are Muhammadans. Numri of the Kurachee collectorate claim descent from a Rajputni who had nine sons, from which the tribe are named Nao Mardi, and the twenty-four branches in which the tribe are now divided have all sprung from these sons.

NUN. Buddhism assumed a distinct form in the middle of the 3d century B.C., and became powerful during the Greek connection with India. Women embracing Buddhism became prominent. They not only began to frequent places of public worship, but came forward to join the clerical body, and were admitted as nuns. Maha Prajapati was the first female admitted to the order. The daughter of Asoka, Sanghamitta, also entered the church, taking the usual vow of celibacy. She went to Ceylon to ordain the princesses, in compliance with the request of her brother Mahendra, who had been sent there to propagate the religion, he being of opinion that a male priest could not ordain a female. Gautama had 500 women admitted into the order. The nuns were, however, restricted in their liberty in holding communication with priests. Women of rank, such as the Maha Maya, the mother of Gautama and Misaka, were moving freely in society, while other classes of females not only moved from place to place, but carried on discussions with men, and took part in secessions. There are several notices of educated females. Visakha, a most celebrated Buddhist lady, resided in Sakita or Ayodhya. Nevertheless Buddha's

personal opinion as to females leading the religious life was: 'Be careful; do not permit females to enter upon my law and become Sramans.' He said, 'What is named woman is sin,' and 'it is better for a priest to embrace the flame than to approach a woman, however exalted her rank.' Mendicants and novices were not permitted to look at a woman. Priests were not allowed to visit widows, grown-up virgins, or women whose husbands were abroad. If a woman had a fall, and required to be lifted up by the hand, no Buddha would help her, because it was considered sinful to touch a woman, whether she lived or died. The Patimokhan forbids not only 'the contact with the person of a woman,' but 'impure conversation with a woman,' sitting on the same seat with her, reclining with her on the same place, being alone with a woman, accompanying her on a journey, and preaching more than five or six sentences to a woman, except in the presence of a man who understood what was said. And yet, according to Hinao, Buddha accepted the invitation of Ambasali, the celebrated courtesan of Vaisali, 'who took her seat on one side of him.' The Buddhist women of that day were clad in robes. The king of Kosala presented to each of his 500 wives 'a splendid robe.' The Bhilaa monument shows the Buddhist female drapery,—a long flowing vest resembling that which is seen in Grecian sculpture. Fa Hian, who came here in A.D. 399, says that 'the females were kept down, and ordered to follow certain precepts.' He cites the instance of brothers marrying non-uterine sisters, in the case of the sons of one of the kings of Patala settled near the hermitage of Kapila. As to caste, he says that although the principle in the selection of the chief of religion was the moral merit, inasmuch as Sakya was a Kshatriya, and his successor a Vaisya, and his successor a Sudra, yet the son of the king of Kapila, by the daughter of a slave, was not admitted into the church. When he entered, the cry was, 'The son of a slave dares to enter and be seated here.' In the drawings of the excavated temples of Ajunta 'there are groups of women in various attitudes, particularly in the one of performing tapasya on the Asan siddha;' and also 'of a female worshipper of Buddha' surrounded by a group, and a Brahman among them whom she is teaching. There are, at present, in Buddhist Tibet, many nuns, and the Buddhists and Taoists of China have nuns, but they are not much respected. Christians, Jains, and Manbhaoas also have nuns.—*Cal. Rev.* No. 109.

NUN, also Nuna. HIND. Salt. Nunia, a salt-maker. Nun-dāb, from Nun or Loon, salt, and Dabna, to dip, bespatter, or sprinkle, a custom among the Rajput races of dipping the hand in the salt. The Nun-dāb is the most sacred pledge of good faith. It is had recourse to, to increase the solemnity of an occasion, and to banish all suspicion of treachery, as well as to extinguish ancient feuds, and reconcile chiefs who had never met but in hostility.—*Tod's Rajasthan*, ii. p. 409. See Manwar Pila.

NUNDO KUMAR, commonly written Nund-comar, a Hindu who was condemned to death and executed for forgery. The trial at Calcutta, before Sir Elijah Impey, lasted more than two days. The accused was defended by able counsel. His original offence was backed up on his trial by

perjury, and the blameless Sir Robert Chambers, the friend of Johnson, Gibbon, and Burke, was one of the full bench that rejected a legal plea in bar of punishment, on full deliberation, after sentence had been pronounced.

NUR. ARAB. Light, splendour. Nur-ul-Iman, Light of the faith. Kitab Nur-ul-Anwar-an-Nuraniyah, or Book of the brilliant and luminous lights, is a religious book of the Shamsia worshippers of the sun. It asserts that the sun is God the creator, has been from all eternity, is the true God of nature. The author puts forth as a creed, La illahā illulahō wa 'as Shams arash illahi, Kadūs! Kadūs! Kadūs! There is no deity but God, and the sun is the throne of God, holy! holy! holy! The book is in elegant language, and contains many beautiful hymns in honour of the sun.—*Catálogo*.

NUREH. ARAB., PERS. Quicklime, also a depilatory made of yellow arsenic (1 oz.), pounded and mixed with quicklime (4 oz.) till the compound assumes a uniform yellowish tinge. It is applied to the skin in a paste made with warm water, and must be washed off after a minute or two, as it burns as well as stains. This admirable invention is ascribed by eastern authors to the ingenious Soliman, who could not endure to see the state of Bilkis of Sheba's bare legs.—*Burton's Scinde*, i. p. 278; *Lane*.

NUR JAHAN was first the wife of Sher Afghan Khan, and was afterwards married by the emperor Jahangir. Her name was Mihr-un-Nissa. Her grandfather was a native of Teheran, and held a high civil office under the Government of Persia; but his son Mirza Ghaias was reduced to poverty, and emigrated to India with his wife, two sons, and a daughter. At Kandahar his wife gave birth to Nur Jahan, but the family were in such poverty that they exposed the new-born child on the road. A merchant in the caravan, however, found the infant, and adopted her, and her mother was employed as its nurse. The merchant took an interest in the family, gave them employment, and introduced them to the emperor Akbar, who gave the husband employment. Nur Jahan and her mother often visited Akbar's harem, and Akbar recommended that she should be married, in order to withdraw her from the notice of his son Salim. She was accordingly wedded to Sher Afghan, a young Persian, to whom Akbar gave a jaghir in Bengal. When Kutub-ud-Din, Salim's foster-brother, went there as viceroy, Sher Afghan took alarm, and threw up his employ under the emperor. The viceroy visited the part of the country in which Sher Afghan lived, and invited his attendance. At the interview, Sher Afghan, insulted by the proposals, killed the viceroy with his dagger, was himself immediately despatched by the attendants, and Nur Jahan was sent prisoner to Dehli. For some time she refused Jahangir's offers of marriage, but at length yielded, and under her influence his conduct improved, his barbarous cruelties ceased, and he drank only at night, and in his private apartments. She increased the magnificence of his court, yet lessened the expenses. She was facile in composing extempore verses, and is said to have taught the manufacture of otto of roses. Her niece, daughter of Asaf Khan, was married to Prince Kurram, afterwards Shah Jahan, and her own daughter by Sher Afghan was married to Prince Shahriar, the emperor's

youngest son. She remained with her husband when he was made prisoner by Muhabbat Khan, on the banks of the Hydaspes, while on his way to Kābul, in March A.D. 1626 (Jamadi-ul-Akhir 1085), and procured her husband's and her brother's release. She used all her powers to prevent Shah Jahan succeeding his father, and to secure the throne for her son-in-law, Prince Shahriar, but on the 28th October 1627 (A.H. 28th Safar 1037) her husband, in the 60th year of his age, died of asthma while on his way for change of air from Kashmir to Lahore, and all her influence expired with her husband's life. Shahriar was absent in Lahore, her brother Asaf Khan took the side of Shah Jahan, put Nur Jahan under restraint, and marched against and defeated Shahriar. Shah Jahan arrived at Agra, and was proclaimed emperor on the 26th January 1628 (A.H. 7th Jamadi-ul-Akhir 1037). From that time, although she lived till A.D. 1646 (A.H. 1055), her name is never again mentioned in history. She was treated with respect, and allowed a yearly stipend of £250,000. She wore no colour but white after Jahangir's death, abstained from all entertainments, and appeared to devote her life to his memory. She was buried at Lahore in a tomb she herself had erected close to that of Jahangir. —*Khafī Khan*; *Elphīn*. p. 483.

NURMA and Nustoo, a male and a female deity of the Garo race.

NURPUR. This town derives its name from the celebrated Nur Jahan, the wife of the emperor Jahangir. Its original name was Dahmari, or Dahmala, or, as Abul Fazl writes, Dahmahri. The people pronounce the name as if written Dahmeri. It is also called Pat'haniya. Nurpur is at the entrance of the Western Himalaya, where they rise from the plain of the Panjab, and contains about 15,000 people, principally Kashmirians engaged in the shawl trade. It is on the great road through which Kashmir, Chenab, and Ladakh are attainable. —*Cunningham's India*, p. 143.

NURTIUNG, a town in the Jaintia Hills. Its people erect stone pillars, which Lieutenant (Colonel) Yule supposed to be connected with their religion. He says that in the Khassya upright stones are raised as memorials of great events, or of men, whose ashes are not necessarily, though frequently, buried or deposited in hollow stone sarcophagi near them, and sometimes in an urn placed inside a sarcophagus, or under horizontal slabs. The usual arrangement is a row of five, seven, or more, erect, oblong blocks with round heads (the highest being placed in the middle), on which are often wooden discs and cones; more rarely pyramids are built. Broad slabs for seats are also common by the wayside. Lieutenant (Colonel) Yule mentions one 32 feet by 15, and 2 feet in thickness; and states that the sarcophagi (which, however, are rare) formed of four slabs resemble a drawing in Bell's *Circassia* and descriptions in Irby and Mangles' *Travels in Syria*. He adds that many villages derive their names from these stones, mau signifying stone: thus mauamai is the stone of oath, because, as his native informant said, 'there was war between Churra and Mauamai, and when they made peace, they swore to it, and placed a stone as a witness.' Mamloo is the stone of salt, eating salt from a sword's point being the Khassya form of oath; mauifong is the grassy stone, etc. In the

south of England, maen, man, or men is the Druidical name for a stone, whence penmaen-mawr, for the hill of the big stone; maen-hayr, for the standing stones of Brittany, and dolmen, the table stone of a cromlech. —*Hooker's Him. Jour.*; *The Khasiya Mountains*, by Lieut. H. Yule.

NUR-ud-DIN LUTF-ULLAH, better known as Hafiz Abru, was born in the town of Herat, but was educated at Hamadan, and travelled extensively in Asia. He was much esteemed by Timur, and after Timur's death he attended the court of Shah Rukh, to whom he dedicated his great work *Zabdat-ut-Tawarikh Baisanghari*, which contains a complete history of the world, and an account of the institutions and religions of different people down to A.H. 829 (A.D. 1425). His work is generally known as the *Tarikh-i-Hafiz Abru*. A large part of the work is copied from older historians, Tabari, Rashid-ud-Din, and the *Zafar Nama*. —*Elliot's Hist. of India*.

NUR-ul-HAQQ, styled Al Mashrahi, Al Dehlini, Al Bokhari, son of Abd-ul-Haqq, author of the *Zabdat-ut-Tawarikh*. His father had written a literary history, which Nur-ul-Haqq continued to the close of Akbar's reign. He gives a history of the kings of Bengal, the Dekhan, Delhi, Gujarat, Juanpur, Kashmir, Malwa, Sind, and Tatta. —*Elliot*.

NUSHKI, a western subdivision of Baluchistan. The Zigger Minghal and Rakshani, who inhabit Nushki, have no proper towns or villages, but reside in tents, though not migratory. Their river, the Kassar, is useless for irrigation, and is lost amongst the sands. They cultivate wheat at the skirts of the hill ranges supporting the plateau of Saharawan. Snow seldom falls. The Zigger Minghal at one time occupied the Dasht-i-Giran, near Kalat, but their increasing numbers compelled them to migrate into Nushki, dispossessing the Rakshani, of whom two tomons or clans still reside at Nuahki. They have a much-valued breed of horses, called Tarji. Their flocks are very numerous. The original seats of the Yauzfai were about Garra and Nushki, the last of which places is on the borders of Dasht-i-Loot, or Great Salt Desert, and now held by the Baluch under Kalat-i-Nusseer.

NUSSUL or Naal, an elephant variety in Cachar, between the Kumirah and the Mirgia.

NUT, in India, a wandering tribe, who are dancers, actors, athletes, called also Sirki baah (dwellers under mats). Those met with in the Dekhan are not distinguishable from Dher. The Bazigur and Nut have each a language understood only by themselves. They live principally by fortune-telling (by palmistry and other means), and are alike addicted to thieving. The Nut leader is the nardar bouthah. They appear to be equally indifferent on the subject of religion, and in no respect particular in their food. The Bazigur are subdivided into seven clans, viz. the Charee, At'bhyee's, Bynsa, Purbutee, Kalkoor, Dorkinee, and Gungwar; but they live together and intermarry. They practise the Muhammadan rite of circumcision. They regard Tan-Sin as their tutelary deity. They play on various instruments, sing, dance, and are athletes; the two latter accomplishments are peculiar to the women. Their songs are beautifully simple. —*Cole. Myth. Hind.* p. 313.

NUTCRACKER, a genus of birds, comprising *Nucifraga caryocatactes* and *N. hemispila* from the Himalayan mountains. *N. caryocatactes* of

the pine forests of Europe and Siberia, is replaced by *N. hemispila* in those of the Himalaya generally, and by *N. multimaculata* about Kashmir.—*Eng. Cyc.*

NUT GRASS, *Agrostis linearis*.

NUTH, the nose-jewel worn by Hindu women; even to mention this is considered a breach of delicacy. But Colonel Tod states that, as a token of the full confidence reposed in him, he was told that, 'Should you even send to the queen's apartment and demand her necklace or nutna, it shall be granted.'—*Tod's Rajasthan*, i. p. 431.

NUTMEG.

Jowz-ul-teib, . . .	ARAB.	Jowz bewa, . . .	PERS.
Za te pha, . . .	BURM.	Jati-phala, . . .	SANSK.
Juh-tau-k'au, . . .	CHIN.	Jatipullum, . . .	SINGH.
Juh-kwo, Yuh-kwo, , ,		Jadikai, . . .	TAM.
Jaiphul, . . .	HIND.	Jajikaia, . . .	TEL.
Buah pala, . . .	MALAY.	Jevizi, . . .	TURK.

The nutmeg of commerce is from the *Myristica moschata*, a tree from 20 to 25 feet high, but other species produce aromatic fruits, supposed to be mixed with the true nutmeg; amongst which may be named the *M. tomentosa*, *Thunb.*, *M. parviflora*, *M. peltata*, and *M. spicata*, *Roxb.* *M. moschata* is the only one of which the nut or mace is of any value, and its geographical limits are comprehended between long. 126° and 135° E., and lat. 3° N. and 7° S. It is, or has been, found wild in the proper Moluccas, in Gilolo, Ceram, Amboyna, Boeroe, Damua, the N. and S. sides of the Western Peninsula of New Guinea, and in all its adjacent islands. It certainly does not exist in its wild state in any of the islands W. of these, nor in any of the Philippines. Wherever the soil and climate are suitable for its growth, the aromatic nutmeg is raised with great facility. It is even transported to remote parts, and two species of pigeon, *Columba perspicillata* and *C. aenea*, which prey on the nutmeg (as the wood-pigeons on the acorn), feed on the mace, and drop the nut, have spread it from the Moluccas to New Guinea.

The clove plant has been spread over Asia, Africa, and the West Indies, but the nutmeg tree rarely flourishes out of the Malay Archipelago, except as an exotic, all attempts to introduce it largely into other tropical countries having decidedly failed. The island of Ternate, which is in about the same latitude as Singapore, is said to have been the spot where it was truly indigenous, but no doubt the tree is to be found on most of the Moluccas. The Dutch, in 1632, removed the plantations from Ternate to the Banda Isles for better surveillance, where they still remain and flourish. It was cultivated in Penang with little success, and is to be found in Ceylon and the west coast of India. In the Banda Isles no further attention is paid to its cultivation than setting out the plants in parks, under the shade of large forest trees, with long horizontal branches, called Canari by the natives. There it attains a height of 50 feet and upwards.

In its native country the nutmeg tree comes into full bearing in its ninth year, and lives to 75. In shape and size, the ripe fruit resembles a nectarine. It consists, first, of an outer fleshy covering called the pericarp, which, when mature, separates into nearly equal longitudinal parts or valves; secondly, of the aril or mace, which, when recent, is of a bright scarlet colour; and, thirdly, of the seed proper or nutmeg. This is

enclosed in a shell, which is made of two coats; the outer is hard and smooth, the inner, thin, closely invests the seed, sending off prolongations which enter the substance of the seed, and which, being coloured, impart the marbled or mottled appearance characteristic of nutmeg.

The mace amounts to about one-fifth part of the weight of the whole dried fruit. These two articles, the nut and mace, constitute the spices which for so many ages have been in request among the nations of Europe and Asia, although never used as a condiment by the inhabitants of the countries that produce it. It is a dioecious plant, having the male pale yellow flowers upon one tree, and female or fertile flowers upon another.

In the Banda Islands the principal gathering is in July or August, the second in November, and the third in March or April. The fruit is gathered by means of a barb attached to a long stick; the mace is separated from the nut, and separately cured. On account of their liability to the attacks of the nutmeg insect, they should be dried in their shells, as they are then secure from the insect. They are placed on hurdles, and smoke-dried over a slow wood fire for about two months. In the Banda Islands they are first dried in the sun for a few days. When the operation of drying is complete, the nuts rattle in their shells; these are cracked with mallets, and the damaged, shrivelled, or worm-eaten nuts removed. To prevent the attacks of the insect, the nuts are frequently limed. The Dutch lime them by dipping them into a thick mixture of lime and water, but this process is considered to injure their flavour. Others lime them by rubbing them with recently prepared, well-sifted lime. This process is sometimes practised in London. For the British market, however, the brown or unlimed nutmegs are preferred.

The extremely limited consumption of nutmegs and mace, and of the latter especially, over the world, perhaps ever will check any permanently large progressive increase of these spices. The Dutch confined the cultivation of the nutmeg, when they got possession of the Moluccas from the Portuguese in the end of 1598, to Lonthoir or Great Banda, Banda Neira, and Pulo Aye. The produce has ever been subject to great fluctuations, owing to various causes, the most prominent of which were the eruptions of volcanoes and earthquakes: In 1772 a hurricane nearly annihilated the plantations, and in 1811 a severe storm destroyed much fruit. High winds frequently diminish the crops greatly, and sulphureous vapours sometimes blast the trees.

The wild nutmeg from the *M. tomentosa* has scarcely any flavour or odour. The seeds of *M. fatua* are about half as long again as the true or round nutmeg; they are paler and less aromatic. At the Madras Exhibition of 1855 fine samples of nutmegs were sent by General Cullen from his gardens, Vellei Malay, near Oodagherry, south of Travancore, 1890 feet above the sea. Two sorts of nutmegs were exhibited by C. S. Verne de, Esq., commercial agent to the Cochin Government. A wild or spurious nutmeg was also forwarded from the Baba Booden Hills, Mysore, and from Canara; it is much used as a substitute for the true spice, but is almost wholly devoid of aroma, and of no interest. A wild nutmeg grows in Damua, Am-

boyna, Ceram, Obi, New Guinea, Gilolo, of an elliptical shape, 1 inch or 1½ inch long. *Acroclidium camara*, Schomb., yields a fruit known as the Camara, also Ackani nutmeg of Guiana; the clove nutmeg and the Brazil nutmeg. The calabash nutmeg is from the *Moreodora myristica*. *Pyrrhosia Horsfieldii*, Blume, also yields a wild nutmeg.

NUTMEG BUTTER

Japhul ka tel, . . . HIND. | Jadipootrie tailum, TAM.
Adeps myristiceæ, . . . LAT. | Jajikarra noona, . . . TEL.

is obtained by expression from the nutmeg. It has an aromatic smell from the volatile oil it contains. The nutmegs are beaten into a paste, which is enclosed in a bag, steamed, and pressed between hot plates. It is imported in oblong cakes, wrapped in flag-leaves or leaves of the banana, and weighing about three-quarters of a pound. It is of an orange or reddish-brown colour, and of a fragrant odour. It is liable to much adulteration, and so also is the volatile oil, with which turpentine is frequently mixed. The article called expressed oil of mace is obtained from the nutmeg, and should bear its name. Nutmeg butter, according to Playfair, consists of three fatty substances, two of which are soluble in alcohol, and the third almost insoluble in that fluid. The third substance has been termed myristine, and from this myristic acid is prepared.

NUTMEG, MALE, a native of the Moluccas, is covered with a hard shell, and provided with a pale arillus. It is 1½ to 2 inches long, elliptical, the parenchyma devoid of marbling. Its odour is weak, and flavour disagreeable. Its properties are analogous to that of the true nutmeg, but the oil is so inferior in proportion, that it is but of little commercial value. It is thought that it might, however, be greatly improved by cultivation. They are procurable in most Indian bazars.—*Faulkner*.

NUTS, ACHEEN, are the betel-nut, boiled, of very inferior quality, chiefly used by the lower classes in the south of India, and are in no demand at Madras; sold from 35 to 50 rupees a candy.

NUTS, COLUMBO, are raw betel-nuts, chiefly used by the Kayala Muhammadians.

NUX VOMICA, *Strychnos nux vomica*.

Elus Mahi, . . . ARAB.	Izaraki, . . . PERS.
Khanak-ul-kalb, . . . "	Culaka, Katak, . . . SANSK.
Jao-ul-kai? . . . "	Veshamosti bejum, . . . "
Fan-muh-pieh, . . . CHIN.	Kodakadduraatta, SINGH.
Ma-tsen-tze, . . . "	Yetti cottay, . . . TAM.
Poison nut, Dogbane, ENG.	Mustighenza musadi
Noix vomique, . . . FR.	vittu, . . . TEL.
Kuchla, . . . HIND.	

The nux vomica is the nut of *Strychnos nux vomica*, a moderate-sized tree of Southern India, Burma, Siam, and China, also Australia. The pulp has a bitter taste, and acts as a poison to man, from the strychnine and brucine it contains, but Roxburgh mentions that it is eaten by some birds. The seeds of the fruit contain two alkalies, strychnia and brucia, united with igneauric acid. Strychnine also occurs in the bark of the tree and in the bark and root of several other species of the genus. Nux vomica was early used as a medicine by the Hindus, by whom its properties must have been investigated long before it could be known to foreign nations.—*Murray*.

NYAD. HIND. A term applied to converts to

Muhammadanism. The western Nyad from the Rajput or other Hindu tribes are Zjhut, Rajur, Umra, Sumra, Mair or Mer, Mor or Mohor, Baluch, Lumria or Looka, Sumaicha, Mangulia, Baggreah, Dabya, Jobya, Kairooe, Jangurea, Undur, Beromee, Bawuri, Tawuri, Chrendes, Khossa, Sudani, Lohana. These converts are ferocious and intolerant. The word means newcomers.

NYA-PEE or Gna-pee. BURM. The Balachang of the Malays, a compound of several kinds of small fish. Putrescent fish, in some shape or other, is a condiment among all the races from the mountains of Sylhet to the isles of the Archipelago.

NYASA, in Hindu worship, a form of ejaculation, made with a short and mystic prayer, to the heart, the head, the crown of the head, and the eye, as Om! Sirase Namah! Om! salutation to the head, with the addition of the Kavacha, the armour, or syllable Phat, and the Astra, the weapon, or syllable Hum. The entire mantra, the prayer or incantation, is then, Om! Sirase Namah, Hum, Phat. The Nyasa is performed at the time of worship (puja), and consists of a number of curious, minute, and almost undefinable motions of the hands and fingers (while the person repeats prayers), such as touching the eyes, ears, shoulders, mouth, nose, head, breast, etc., doubling and twisting the hands, fingers, etc.—*Hin. Th.* ii. 53.

NYAYA, a system of philosophy of the Hindus, a syllogism; Nyaya means going into, or analysis. This school of philosophy, or logical system of Gautama, considers, by means of subtle and logical argument, the true mode of inquiring after truth; and it has surveyed the whole field of this argument more exactly and completely than any other of the Hindu systems.

The first inquiry of this system is what is the way to attain perfect beatitude? and the answer given is, that deliverance is only to be secured by a knowledge of the truth.

It then proceeds to examine what instruments are best adapted for the acquisition of that deliverance, and comes to the conclusion that they are four in number, namely, perception, inference, comparison, and testimony.

It then minutely examines the various objects of knowledge which are required to be proved and known, which objects are twelve in number,—soul, body, sense, object, knowledge, the mind, activity, fault, transmigration, fruit, pain, and beatitude.

The Nyaya system is one of six orthodox philosophical schools of the Hindus. Of these philosophical schools, the Nyaya seems analogous to the Peripatetic of Greece, or to the dialectical school of Xenophanes; the second, sometimes called Vaisishica or Vaiseshka, to the Ionic; the two Mimansa—the Mimansa of Jaimini and the Mimansa or Vedant of Vyasa (the second of which being often distinguished by the name of Vedanta)—to the Platonic; the first Sanchya to the Italic, and the second, or Patanjala, to the Stoic philosophy. So that Gautama corresponds with Aristotle, Kanada with Thales, Jaimini with Socrates, Vyasa with Plato, Kapila with Pythagoras, and Patanjali with Zeno; but an accurate comparison between the Grecian and Indian schools would require a considerable volume. The original works of those philosophers are very succinct; but,

like all the other shastras, they are explained or obscured by Upadarsana, or commentaries, without end. The Veda, Upa Veda, Vedanga, Purana, Dharma, and Daršana are their six great shastras, in which all knowledge, divine and human, is supposed to be comprehended. The word shastra, derived from a root signifying to ordain, means generally an ordinance, and particularly a sacred ordinance, delivered by inspiration; properly, therefore, the word is applied only to sacred literature. The Sudras, or fourth class of Hindus, are not permitted to study the six proper shastras before mentioned; but an ample field remains for them in the study of profane literature, comprised in a multitude of popular books, which correspond with the several shastras. All the tracts on medicine must, indeed, be studied by the Vaidyas, or hereditary physicians, who have often more learning, with far less pride, than any of the Brahmins; they are usually poets, grammarians, rhetoricians, moralists, and may be esteemed, in general, the most virtuous and amiable of the Hindus. See Daršana; Veda; Vidya.

NYCTANTHES ARBOR-TRISTIS. Linn.

Scabrita scabra, Vahl.	Parilum arbor-tristis, Gaertn.
S. triflora, L., Mart.	
Kuri of BEAS.	Pahar-butti, . . . MAHR.
Shioli, Singahar, . . BENG.	Manjapu-maram, MALEAL.
Hseik-ba-lu, BURM.	Pakura, RAVI.
Hursing, Hursinghar, CAN.	Sephalica, SANSE.
Laduri, Ludika, CHENAB.	Sepala, SINGH.
Hung-moh-li, CHIN.	Paghalanalli, . . . TAM.
Keysur, DUKH.	Poghadamullay, . . TEL.
Birjat, Sital, HIND.	

The sorrowful nyctanthes, tree of mourning, is a charming little tree, with rough scabrous leaves, well known for the delicious though evanescent perfume of its flowers. The tubes of their corollas, called in Hindi Kesru Dundee, are of a fine rich yellow colour, and are employed alone or in conjunction with the Parasam flowers (Butea frondosa) in preparing a beautiful though transient bright yellow dye, much sought after by the Muhammadans for dyeing their turbands, and used for dyeing silks especially; it produces a good yellow colour, and compounds with reds into a pleasing series of flame, salmon, and orange colours. The flowers, Dunda poo, TEL., are used for giving a scent to cloths. Buchanan mentions the product as the powder scattered at the Holi feast. In Ajmir, the tubes of the corolla are used under the name of Kesru, to dye buff or orange colour. This plant is very abundant, wild, at the foot of the Vindhya range, where the green tough stalks are used to make large grain baskets of. It is as great a favourite in India as in South America. Its delicate orange and white blossoms pour the most delicious fragrance on the evening air, and then fall in showers, bedewing the earth's cold bosom with sweetness. Its flower is held sacred to Siva.

NYCTERIBIA, a genus of insects, large parasites, found only on bats, and often associated on these animals with fleas and mites. It has long claws like a spider, and insinuates itself among the fur. It is a singular parasitic creature, which appears to have neither head, antennae, eyes, nor mouth. It moves by rolling itself rapidly along, rotating like a wheel on the extremities of its spikes, or like the clown in a pantomime, hurling himself forward on hands and feet alternately. It was first discovered only on a few

European bats. Joinville figured one which he found on the large roussette or flying-fox, and says he had seen another on a bat of the same family. Dr. Templeton observed them in Ceylon in great abundance on the body of the Scotoophilus Coromandelicus.—*Tennent's Ceylon*, p. 20.

NYMPHÆÆ, or Water-lily tribe, are all floating plants, dispersed through most warm parts of the world. Their stems are bitter and astringent, and contain a considerable quantity of fœcula, which may be used as food. The genera and species are as under:—

Euryale ferox, Salisb., North India, Bengal.
Nymphaea pubescens, L., British India.
N. rubra, Roxb., British India.
N. rubra, var. rosea, Roxb., Bengal.
N. rubra, var. major, the N. cyanea, R., Bengal.
N. versicolor, Roxb., Bengal.
N. edulis, D.C., Bengal.
N. stellata, Willd., Peninsula of India.

NYMPHÆA EDULIS. D.C.

Nymphaea esculenta, Roxb.	Castalia odulia, Salisb.
Choto sundhi, BENG.	Kotika, TEL.
Edible lotus, ENG.	Kalharamu, "

The edible water-lily, a native of the East Indies, in wet, fenny districts. Like all the species, it has large pear-shaped roots, which contain an abundance of starch, and they are consequently used as articles of diet.—*Roxb.; Voigt.*

NYMPHÆA GIGANTEA, of Eastern and Northern Australia, has large blue flowers, which measure 12 inches across. The rhizome and seeds are eaten by the aborigines; the flower-stalks of the unexpanded flowers, deprived of their fibre, are also eatable.

NYMPHÆA PUBESCENS. Willd. Lotus.

N. lotus, Burm., Roxb. ii. p. 577.

Kyrob, ASSAM.	Kooni, SIND.
Buro-shaluk, BENG.	Juda-tel-olu, . . . SINGH.
Kya-phyu, BURM.	Tella-kaluva, . . . TEL.
Koi, Kumul, HIND.	Kaki-kaluva, "
Nilofar, PERS.	Alli-kalung, "

A native of Africa, of all the E. Indies, and of Java. It was venerated by the Egyptians, and is held sacred by the Hindus, being regarded as an emblem of fertility. It has large white flowers, with sepals. The root is large, tuberous, and eatable.

NYMPHÆA PYGMIA, a diminutive water-lily. Its flower is no larger than a half-crown; grows on the Khassya Hills, in China and Siberia.—*Hooker's Journ.* ii. p. 312.

NYMPHÆA RUBRA. Roxb. Water-lily.

Kya-nee, BURM.	Ruta-tel-olu, . . . SINGH.
Rakta kamala, HIND.	Erra kaluwa, . . . TEL.
Rakto-manduka, SANSE.	

This water-lily grows in tanks in the Peninsula of India and in Bengal. Its flowers appear at the close of the rains, are of an intense red or dark crimson colour.

Var. β . Nymphaea rosea.

Oh'oto-rukto kumul, BEN.	Rakta kamala, HIND.
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This has large rose-coloured flowers. It is cultivated in tanks, but grows wild.—*Roxb.*

NYMPHÆA STELLATA. Willd. Blue lotus.

Ch'oto nil-padma, BENG.	Nal-tel-olu, SINGH.
Soondi, "	Indivara, TEL.
Kahlara, Indivara, SANSE.	Nalla kaluwa, "
Nilumbo janma, "	

Grows common in ponds and tanks in the

NYSA.

NYOUN-GOO and **Pagan-Myo, BURM.**, towns three miles apart, are both embraced in the space thickly spotted with the ruined temples of the ancient Burmese capital Pagan. They are the chief seat in Burma proper of the manufacture of the boxes and cups made of the varnished basket - work commonly called lacquered ware. See Pagan.

Buro-nil-padma, .	BENG.	Nil-padma, . . .	HIND.
Blue water-lily, .	ENG.	Lila phool, . . .	„

NYSA, a town occupied by the Greek colonies of the Panjab, regarding the position of which much doubt is entertained. It is said to have been the native place of the Indian Bacchus; and again, the Nysæi, a colony settled by him in India. It has been supposed to have been the station of Raja Rajeswara and his consort, and to be the same with the city of Deva-Nahusha-nagari; also a town extending around the mount Meru of the Hindus.—*As. Res.* v. iii. p. 386; vi. pp. 497, 501; ix. p. 48; xvii. p. 611.

NYMPHONÆ, sea-spiders, crawl out from under stones, and, having no body to speak of, carry their stomach, for economy of space, packed in long branches up the inside of each leg; they are found in the depths of the Arctic Sea and Southern Seas.

NYOLBA or Nyalba. TIB. The Naraka,
SANSK., or hell of the Hindus.

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